

# SCORE Search Results Details for Application 09556178 and Search Result 20101214\_103254\_us-09-556-178- 5.rag.

[Score Home Page](#) [Retrieve Application List](#) [SCORE System Overview](#) [SCORE FAQ](#) [Comments / Suggestions](#)

This page gives you Search Results detail for the Application 09556178 and Search Result 20101214\_103254\_us-09-556-178-5.rag.

[Go Back to previous page](#)

GenCore version 6.3  
Copyright (c) 1993 - 2010 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: December 14, 2010, 11:22:17 ; Search time 37 Seconds  
(without alignments)  
5898.160 Million cell updates/sec

Title: US-09-556-178-5  
Perfect score: 882  
Sequence: 1 MEALILEPSLYTVKAILILD.....QTVSQVLQSAKEQIKWSSLR 177

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 6395994 seqs, 1224146475 residues

Total number of hits satisfying chosen parameters: 6395994

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : A\_Geneseq\_201023:\*  
1: geneseqp1:\*  
2: geneseqp2:\*  
3: geneseqp3:\*

## SUMMARIES

Result No.	Score	% Query		DB	ID	Description
		Match	Length			
1	882	100.0	177	1	AAY49960	Aay49960 Human ves
2	882	100.0	177	1	AAB03815	Aab03815 Human ves
3	882	100.0	177	1	AAB03789	Aab03789 Human cap
4	882	100.0	177	1	ADO23737	Ado23737 COPI coat
5	882	100.0	177	2	AEJ65021	Aej65021 Liver can
6	882	100.0	177	3	AYI11804	Ayi11804 Human coa
7	845	95.8	177	1	ADO57263	Ado57263 Kidney de
8	673	76.3	210	1	AAY31641	Aay31641 Human tra
9	673	76.3	210	1	ADO23725	Ado23725 COPI coat
10	673	76.3	210	3	AYI11805	Ayi11805 Human coa
11	671	76.1	137	1	AAG01470	Aag01470 Human sec
12	580	65.8	185	1	ADO21857	Ado21857 Human ves
13	564.5	64.0	160	1	ABB60295	Abb60295 Drosophil
14	564.5	64.0	160	2	AFB87634	Afb87634 Fruit fly

15	507.5	57.5	181	2	ARO36046	Aro36046 Soybean c
16	507.5	57.5	181	2	ARO37763	Aro37763 Soybean c
17	507.5	57.5	181	3	AXJ10909	Axj10909 Heteroder
18	507.5	57.5	181	3	AXJ09192	Axj09192 Heteroder
19	493.5	56.0	175	2	ADY65214	Ady65214 S. manson
20	441.5	50.1	154	2	ARO39451	Aro39451 Soybean c
21	441.5	50.1	154	3	AXJ12597	Axj12597 Heteroder
22	440	49.9	99	1	AAB54324	Aab54324 Human pan
23	394	44.7	179	2	AFQ47080	Afq47080 Glycine m
24	386	43.8	177	2	ARM90905	Arm90905 Arabidops
25	386	43.8	177	2	ARM94661	Arm94661 Arabidops
26	379	43.0	177	2	ARB02835	Arb02835 Cotton pr
27	375.5	42.6	180	1	AFP84367	Afp84367 Glycine m
28	373	42.3	182	2	ARL84894	Arl84894 Maize pla
29	371	42.1	182	1	AAG35416	Aag35416 Zea mays
30	371	42.1	182	2	ALJ76006	Alj76006 Plant pro
31	371	42.1	182	2	AFC59274	Afc59274 Maize ami
32	371	42.1	182	2	ARM13352	Arm13352 Zea mays
33	371	42.1	182	3	AYF39857	Ayf39857 Plant pol
34	371	42.1	206	1	ADX78919	Adx78919 Plant ful
35	371	42.1	206	2	ANO11441	Ano11441 Zea mays
36	371	42.1	225	1	ADY23237	Ady23237 Plant ful
37	371	42.1	225	2	ANO34177	Ano34177 Zea mays
38	368	41.7	179	1	AAG38559	Aag38559 Arabidops
39	368	41.7	179	2	ALJ80333	Alj80333 Plant pro
40	368	41.7	179	2	ARN03104	Arn03104 Arabidops
41	368	41.7	225	2	ARN03103	Arn03103 Arabidops
42	364	41.3	182	2	ARM52453	Arm52453 Glycine m
43	359	40.7	177	1	ADT60317	Adt60317 Plant pol
44	359	40.7	177	2	AFC50108	Afc50108 Wheat ami
45	359	40.7	177	2	AJG83201	Ajg83201 Triticum

## ALIGNMENTS

## RESULT 1

AAAY49960

ID AAY49960 standard; protein; 177 AA.

XX

AC AAY49960;

XX

DT 15-JUN-2007 (revised)

DT 04-FEB-2000 (first entry)

XX

DE Human vesicle trafficking protein 3.

XX

KW Human; vesicle trafficking protein; VTP-1; VTP-2; VTP-3; apoptosis;

KW cancer; inflammation; BOND\_PC; coatomer protein complex, subunit zeta 1;

KW CGI-120 protein; coatomer protein complex, subunit zeta 1 [Homo sapiens];

KW COPZ1; COPZ; CGI-120; zetal-COP; subunit zeta;

KW nonclathrin coat protein zetal-COP;

KW coatomer protein complex, subunit zeta 1 [Mus musculus]; D4Ertd360e;

KW 5930435A22Rik; AA407760; MGC118060;

KW similar to Coatomer zeta-1 subunit (Zeta-1 coat protein) (Zeta-1 COP);

KW LOC609925; LOC607013;

KW coatomer protein complex, subunit zeta 1, isoform CRA\_a;

KW coatomer protein complex, subunit zeta 1, isoform CRA\_a [Homo sapiens];

KW unnamed protein product; unnamed protein product [Mus musculus];

KW hypothetical protein; hypothetical protein [Pongo pygmaeus]; HSPC181;

KW HSPC181 [Homo sapiens]; z-cop; z-cop [Homo sapiens];

KW Coatomer protein complex, subunit zeta 1 [Homo sapiens];

KW CGI-120 protein [Homo sapiens]; zetal-COP [Homo sapiens];

KW unnamed protein product [Macaca fascicularis];

KW Coatomer protein complex, subunit zeta 1 [Mus musculus];

KW nonclathrin coat protein zeta-COP;

KW nonclathrin coat protein zeta-COP [Mus musculus]; Copz1 protein;



KW Vesicle trafficking protein; VTP-3; human; cancer; inflammation; asthma;  
 KW foetal development; Crohn's disease; diabetes; multiple sclerosis;  
 KW rheumatoid arthritis; infection; ulcerative colitis; proliferation;  
 KW irritable bowel syndrome; apoptosis; AIDS; Alzheimer's disease;  
 KW Parkinson's disease; osteoporosis; wasting disorder; BOND\_PC;  
 KW coatomer protein complex, subunit zeta 1; CGI-120 protein;  
 KW coatomer protein complex, subunit zeta 1 [Homo sapiens]; COPZ1; COPZ;  
 KW CGI-120; zetal-COP; subunit zeta; nonclathrin coat protein zetal-COP;  
 KW coatomer protein complex, subunit zeta 1 [Mus musculus]; D4ErtD360e;  
 KW 5930435A22Rik; AA407760; MGC118060;  
 KW similar to Coatomer zeta-1 subunit (Zeta-1 coat protein) (Zeta-1 COP);  
 KW LOC609925; LOC607013;  
 KW coatomer protein complex, subunit zeta 1, isoform CRA\_a;  
 KW coatomer protein complex, subunit zeta 1, isoform CRA\_a [Homo sapiens];  
 KW unnamed protein product; unnamed protein product [Mus musculus];  
 KW hypothetical protein; hypothetical protein [Pongo pygmaeus]; HSPC181;  
 KW HSPC181 [Homo sapiens]; z-cop; z-cop [Homo sapiens];  
 KW Coatomer protein complex, subunit zeta 1 [Homo sapiens];  
 KW CGI-120 protein [Homo sapiens]; zetal-COP [Homo sapiens];  
 KW unnamed protein product [Macaca fascicularis];  
 KW Coatomer protein complex, subunit zeta 1 [Mus musculus];  
 KW nonclathrin coat protein zeta-COP;  
 KW nonclathrin coat protein zeta-COP [Mus musculus]; Copz1 protein;  
 KW Copz1 protein [Mus musculus]; GO5783; GO6886; GO6888; GO6890; GO6891;  
 KW GO16020; GO30126; GO30662; GO5198; GO8565.

XX

OS Homo sapiens.

XX

PN US6071703-A.

XX

PD 06-JUN-2000.

XX

PF 04-AUG-1999; 99US-00368408.

XX

PR 07-NOV-1997; 97US-00967364.

XX

PA (INCY-) INCYTE PHARM INC.

XX

PI Guegler KJ, Shah P, Corley NC, Bandman O, Lal P;

XX

DR WPI; 2000-422079/36.

DR N-PSDB; AAA59875.

DR PC:NCBI; gi7706337.

DR PC:SWISSPROT; P61923, P61924, Q5R5F2.

DR PC:BIND; 54453.

XX

PT Identifying polynucleotides encoding vesicle trafficking proteins (VTP)

PT for treating and preventing e.g. inflammation, by detecting a

PT hybridization complex of a nucleic acid from a sample and a

PT polynucleotide encoding a VTP.

XX

PS Claim 1; Fig 7; 55pp; English.

XX

CC This sequence represents a human vesicle trafficking protein (VTP-3)  
 CC amino acid sequence. VTP-3 encoding cDNA was isolated from an aortic  
 CC tissue cDNA library (HEAONOT03). VTP-3 has structural and chemical  
 CC homology with a subunit of cow coatomer protein, zeta COP. The present  
 CC invention relates to a method for detecting human VTP encoding  
 CC polynucleotide sequences and includes nucleotide and protein sequences  
 CC for human VTP-1, VTP-2 and VTP-3. Northern analysis of VTP-1, 2, and 3  
 CC shows that their expression is associated with cancer, inflammation and  
 CC foetal/infant development. The method of the invention is useful for  
 CC screening and identifying a polynucleotide encoding a human VTP, which  
 CC may be used for the diagnosis, prevention, or treatment of inflammation  
 CC associated disorder, e.g. asthma, Crohn's disease, diabetes, multiple  
 CC sclerosis, rheumatoid arthritis, infections, ulcerative colitis and  
 CC irritable bowel syndrome. Other diseases and disorders identified,

CC prevented or treated with polynucleotide sequences encoding VTP include  
CC those associated with cell proliferation or apoptosis, such as AIDS,  
CC Alzheimer's disease, Parkinson's disease, osteoporosis, wasting diseases  
CC and cancer  
CC  
CC Revised record issued on 15-JUN-2007 : Enhanced with precomputed  
CC information from BOND.  
XX  
SQ Sequence 177 AA;

Query Match 100.0%; Score 882; DB 1; Length 177;  
Best Local Similarity 100.0%;  
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MEALILEPSLYTVKAILILDNDGDRLEFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60  
|  
Db 1 MEALILEPSLYTVKAILILDNDGDRLEFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60  
  
Qy 61 LLEGLTVVYKSSIDLIFYFVIGSSYENELMLMAVLNCLFDSLSQLRKNVEKRALLENMEG 120  
|  
Db 61 LLEGLTVVYKSSIDLIFYFVIGSSYENELMLMAVLNCLFDSLSQLRKNVEKRALLENMEG 120  
  
Qy 121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177  
|  
Db 121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177

## RESULT 3

AAB03789

ID AAB03789 standard; protein; 177 AA.

XX

AC AAB03789;

XX

DT 15-JUN-2007 (revised)

DT 26-OCT-2000 (first entry)

XX

DE Human capsid protein zeta-COP amino acid sequence.

XX

KW Human; capsid-protein; zeta-COP; BOND\_PC;

KW coatomer protein complex, subunit zeta 1; CGI-120 protein;

KW coatomer protein complex, subunit zeta 1 [Homo sapiens]; COPZ1; COPZ;

KW CGI-120; zeta1-COP; subunit zeta; nonclathrin coat protein zeta1-COP;

KW coatomer protein complex, subunit zeta 1 [Mus musculus]; D4Ertd360e;

KW 5930435A22Rik; AA407760; MGC118060;

KW similar to Coatomer zeta-1 subunit (Zeta-1 coat protein) (Zeta-1 COP);

KW LOC609925; LOC607013;

KW coatomer protein complex, subunit zeta 1, isoform CRA\_a;

KW coatomer protein complex, subunit zeta 1, isoform CRA\_a [Homo sapiens];

KW unnamed protein product; unnamed protein product [Mus musculus];

KW hypothetical protein; hypothetical protein [Pongo pygmaeus]; HSPC181;

KW HSPC181 [Homo sapiens]; z-cop; z-cop [Homo sapiens];

KW Coatomer protein complex, subunit zeta 1 [Homo sapiens];

KW CGI-120 protein [Homo sapiens]; zeta1-COP [Homo sapiens];

KW unnamed protein product [Macaca fascicularis];

KW Coatomer protein complex, subunit zeta 1 [Mus musculus];

KW nonclathrin coat protein zeta-COP;

KW nonclathrin coat protein zeta-COP [Mus musculus]; Copz1 protein;

KW Copz1 protein [Mus musculus]; GO5783; GO6886; GO6888; GO6890; GO6891;

KW GO16020; GO30126; GO30662; GO5198; GO8565.

XX

OS Homo sapiens.

XX

PN CN1248624-A.

XX

PD 29-MAR-2000.

XX

PF 22-SEP-1998; 98CN-00119744.

XX  
PR 22-SEP-1998; 98CN-00119744.  
XX  
PA (XINH-) XINHUANGPU FUDAN GENE ENG CO LTD SHANGHA.  
XX  
PI Yu L, Tu Q, Fu Q;  
XX  
DR WPI; 2000-431993/38.  
DR N-PSDB; AAA59847.  
DR PC:NCBI; gi7706337.  
DR PC:SWISSPROT; P61923, P61924, Q5R5F2.  
DR PC:BIND; 54453.  
XX  
PT Novel human capsid protein subunit coding sequence.  
XX  
PS Claim 2; Fig 2; 21pp; Chinese.  
XX  
CC This invention relates to a human gene encoding a capsid protein zeta  
CC subunit (zeta-COP). The invention also relates to a zeta-COP protein  
CC sequence. The present sequence represents the human zeta-COP protein  
CC sequence  
CC  
CC Revised record issued on 15-JUN-2007 : Enhanced with precomputed  
CC information from BOND.  
XX  
SQ Sequence 177 AA;

Query Match 100.0%; Score 882; DB 1; Length 177;  
Best Local Similarity 100.0%;  
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MEALILEPSLYTVKAILILDNDGDRLEFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60  
|  
Db 1 MEALILEPSLYTVKAILILDNDGDRLEFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60  
  
Qy 61 LLEGLTVVYKSSIDLIFYFVIGSSYENELMLMAVLNCLFDSLSQLRKNVEKRALLENMEG 120  
|  
Db 61 LLEGLTVVYKSSIDLIFYFVIGSSYENELMLMAVLNCLFDSLSQLRKNVEKRALLENMEG 120  
  
Qy 121 LFLAVDEIVDGGVILESDPQQVVRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177  
|  
Db 121 LFLAVDEIVDGGVILESDPQQVVRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177

## RESULT 4

ADO23737

ID ADO23737 standard; protein; 177 AA.

XX

AC ADO23737;

XX

DT 15-JUN-2007 (revised)

DT 01-JUL-2004 (first entry)

XX

DE COPI coatomer protein, SEQ ID 26.

XX

KW Cytostatic; nuclear envelope breakdown; nuclear pore protein; Nup153;

KW COPI coatomer complex; cancer; BOND\_PC;

KW coatomer protein complex, subunit zeta 1; CGI-120 protein;

KW coatomer protein complex, subunit zeta 1 [Homo sapiens]; COPZ1; COPZ;

KW CGI-120; zeta1-COP; subunit zeta; nonclathrin coat protein zeta1-COP;

KW coatomer protein complex, subunit zeta 1 [Mus musculus]; D4Ertd360e;

KW 5930435A22Rik; AA407760; MGC118060;

KW similar to Coatomer zeta-1 subunit (Zeta-1 coat protein) (Zeta-1 COP);

KW LOC609925; LOC607013;

KW coatomer protein complex, subunit zeta 1, isoform CRA\_a;

KW coatomer protein complex, subunit zeta 1, isoform CRA\_a [Homo sapiens];

KW unnamed protein product; unnamed protein product [Mus musculus];

KW hypothetical protein; hypothetical protein [Pongo pygmaeus]; HSPC181;  
KW HSPC181 [Homo sapiens]; z-cop; z-cop [Homo sapiens];  
KW Coatomer protein complex, subunit zeta 1 [Homo sapiens];  
KW CGI-120 protein [Homo sapiens]; zeta1-COP [Homo sapiens];  
KW unnamed protein product [Macaca fascicularis];  
KW Coatomer protein complex, subunit zeta 1 [Mus musculus];  
KW nonclathrin coat protein zeta-COP;  
KW nonclathrin coat protein zeta-COP [Mus musculus]; Copz1 protein;  
KW Copz1 protein [Mus musculus].  
XX  
OS Unidentified.  
XX  
PN WO2004027381-A2.  
XX  
PD 01-APR-2004.  
XX  
PF 17-SEP-2003; 2003WO-US029267.  
XX  
PR 17-SEP-2002; 2002US-0411248P.  
XX  
PA (UTAH ) UNIV UTAH RES FOUND.  
XX  
PI Ulmann KS, Liu J, Prunuske A, Dimaano C;  
XX  
DR WPI; 2004-340314/31.  
DR N-PSDB; ADO23736.  
DR PC:NCBI; gi4929709.  
DR PC:SWISSPROT; P61923, P61924, Q5R5F2.  
DR PC:BIND; 54453.  
XX  
PT New composition comprising a molecule that inhibits nuclear envelope  
PT breakdown, useful in treating cancer, e.g. lymphoma, sarcoma or glioma.  
XX  
PS Claim 22; SEQ ID NO 26; 180pp; English.  
XX  
CC The present invention relates to a composition comprising a molecule that  
CC inhibits nuclear envelope breakdown by interfering with the interaction  
CC between nuclear pore protein Nupl53 and COPI coatomer complex. The  
CC composition is useful in treating, inhibiting or preventing cancer, e.g.  
CC lymphoma, leukaemia, mycosis fungoide, carcinoma, adenocarcinoma,  
CC sarcoma, glioma, blastoma, neuroblastoma, plasmacytoma, histiocytoma,  
CC melanoma, adenoma, hypoxic tumour, myeloma, AIDS-related lymphoma or AIDS  
CC -related sarcoma or metastatic, bladder, brain or nervous system cancer,  
CC glioblastoma or ovarian, skin or liver cancer, squamous cell carcinomas  
CC of the mouth, throat, larynx, and lung or colon, cervical, breast,  
CC epithelial, renal, genitourinary or pulmonary cancer, oesophageal  
CC carcinoma, head and neck carcinoma or haematopoietic, testicular,  
CC colorectal, prostatic or pancreatic cancer. The present sequence was used  
CC to illustrate the invention.  
CC  
CC Revised record issued on 15-JUN-2007 : Enhanced with precomputed  
CC information from BOND.  
XX  
SQ Sequence 177 AA;

Query Match 100.0%; Score 882; DB 1; Length 177;  
Best Local Similarity 100.0%;  
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA	60
Db	1	MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA	60
Qy	61	LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLRKNVEKRALLENMEG	120
Db	61	LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLRKNVEKRALLENMEG	120

```
Qy      121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
          |||
Db      121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
```

## RESULT 5

AEJ65021

ID AEJ65021 standard; protein; 177 AA.

XX

AC AEJ65021;

XX

DT 15-JUN-2007 (revised)

DT 05-OCT-2006 (first entry)

XX

DE Liver cancer associated protein SEQ ID NO 63.

XX

KW protein production; recombinant DNA; liver tumor; cytostatic; neoplasm;

KW gastrointestinal disease; BOND\_PC;

KW coatomer protein complex, subunit zeta 1; CGI-120 protein;

KW coatomer protein complex, subunit zeta 1 [Homo sapiens]; COPZ1; COPZ;

KW CGI-120; zetal-COP; subunit zeta; nonclathrin coat protein zetal-COP;

KW coatomer protein complex, subunit zeta 1 [Mus musculus]; D4ErtD360e;

KW 5930435A22Rik; AA407760; MGC118060;

KW similar to Coatomer zeta-1 subunit (Zeta-1 coat protein) (Zeta-1 COP);

KW LOC609925; LOC607013;

KW coatomer protein complex, subunit zeta 1, isoform CRA\_a;

KW coatomer protein complex, subunit zeta 1, isoform CRA\_a [Homo sapiens];

KW unnamed protein product; unnamed protein product [Mus musculus];

KW hypothetical protein; hypothetical protein [Pongo pygmaeus]; HSPC181;

KW HSPC181 [Homo sapiens]; z-cop; z-cop [Homo sapiens];

KW Coatomer protein complex, subunit zeta 1 [Homo sapiens];

KW CGI-120 protein [Homo sapiens]; zetal-COP [Homo sapiens];

KW unnamed protein product [Macaca fascicularis];

KW Coatomer protein complex, subunit zeta 1 [Mus musculus];

KW nonclathrin coat protein zeta-COP;

KW nonclathrin coat protein zeta-COP [Mus musculus]; Copz1 protein;

KW Copz1 protein [Mus musculus]; GO5783; GO6886; GO6888; GO6890; GO6891;

KW GO16020; GO30126; GO30662; GO5198; GO8565.

XX

OS Homo sapiens.

XX

PN CN1618808-A.

XX

PD 25-MAY-2005.

XX

PF 21-NOV-2003; 2003CN-10108764.

XX

PR 21-NOV-2003; 2003CN-10108764.

XX

PA (SHAN-) SHANGHAI HUMAN GENOME RES CENT.

XX

PI Zhu Z, Han Z;

XX

DR WPI; 2005-640540/66.

DR SWISSPROT; Q9Y3C3.

DR PC:NCBI; gi7706337.

DR PC:SWISSPROT; P61923, P61924, Q5R5F2.

DR PC:BIND; 54453.

XX

PT Liver cancer related protein and its coding sequence and use.

XX

PS Claim 1; SEQ ID NO 63; 26pp; Chinese.

XX

CC The invention describes a novel liver cancer associated protein, the  
CC polynucleotide for coding it, the process for preparing said protein by  
CC recombination, and the application of said polynucleotide. This is the  
CC amino acid sequence of a liver cancer associated protein.





DR PC:SWISSPROT; P61923, P61924, Q5R5F2.  
DR PC:BIND; 54453.  
XX  
PT New dynamic bio-nanoparticle element, useful in a multifunction nanoscale  
PT bio-nanoparticle platform, such as a biomedical platform, bio-molecular  
PT platform, electronics platform, and information processing platform.  
XX  
PS Claim 1; SEQ ID NO 29; 121pp; English.  
XX  
CC The present invention relates to a dynamic bio-nanoparticle element  
CC useful in a multifunction nanoscale bio-nanoparticle platform. The bio-  
CC nanoparticle element comprises a clathrin or coatomer cage subset  
CC element, forming in vitro less than a fully assembled clathrin or  
CC coatomer cage element, having attributes, properties, characteristics,  
CC compositions, behaviors and capabilities, that differ in respect from a  
CC fully assembled clathrin or coatomer cage element and nanoscale elements  
CC of types formed in whole or in part from purified, synthetic or  
CC recombinant amino acid molecule elements and their residue elements. The  
CC invention also provides a method for forming a dynamic bio-nanoparticle  
CC element. The dynamic bio-nanoparticle element is useful in a  
CC multifunction nanoscale bio-nanoparticle platform such as a biomedical  
CC platform, bio-molecular platform, electronics platform and information  
CC processing platform. The dynamic bio-nanoparticle element provides self-  
CC directing, self-replicating, self-adapting, self-repairing, self-  
CC regulating and self-regenerating methods for one or more minimalist, non-  
CC cage elements, which can also perform on-the-fly target prioritization.  
CC The present sequence is a human coatomer subunit zeta-1 protein used in  
CC the method for forming a dynamic bio-nanoparticle element of the  
CC invention.  
CC  
CC Revised record issued on 13-OCT-2010 : Enhanced with precomputed  
CC information from BOND.  
XX  
SQ Sequence 177 AA;

Query Match 100.0%; Score 882; DB 3; Length 177;  
Best Local Similarity 100.0%;  
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MEALILEPSLYTVKAILILDNDGDRLEFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60  
|  
Db 1 MEALILEPSLYTVKAILILDNDGDRLEFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60  
  
Qy 61 LLEGLTVVYKSSIDLIFYVIGSSYENELMLMAVLNCLFDSLQMLRKNVEKRALLENMEG 120  
|  
Db 61 LLEGLTVVYKSSIDLIFYVIGSSYENELMLMAVLNCLFDSLQMLRKNVEKRALLENMEG 120  
  
Qy 121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177  
|  
Db 121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177

## RESULT 7

ADO57263

ID ADO57263 standard; protein; 177 AA.

XX

AC ADO57263;

XX

DT 15-JUN-2007 (revised)

DT 15-JUL-2004 (first entry)

XX

DE Kidney development associated protein seqid 30.

XX

KW nephrotropic; cardiant; antiinfertility; cerebroprotective;

KW neuroprotective; muscular; cytostatic; osteopathic; gene therapy;

KW kidney development; kidney disorder; developmental disorder;

KW circulatory disorder; hearing disorder; heart defect; infertility;

KW stroke; mental retardation; muscle defect; proliferative disorder;  
KW bone defect; bone disorder; zebrafish; BOND\_PC; zetal-cop;  
KW zetal-cop [Danio rerio]; copz1; CHUNP6876;  
KW nonclathrin coat protein zetal-COP;  
KW nonclathrin coat protein zetal-COP [Danio rerio]; GO6810; GO6886;  
KW GO30662; GO8565; GO19012.  
XX  
OS Danio rerio.  
XX  
PN US2004068763-A1.  
XX  
PD 08-APR-2004.  
XX  
PF 28-MAR-2003; 2003US-00403571.  
XX  
PR 29-MAR-2002; 2002US-0368760P.  
XX  
PA (HOPK/) HOPKINS N.  
PA (GOLL/) GOLLING G.  
PA (AMST/) AMSTERDAM A.  
PA (SUNZ/) SUN Z.  
XX  
PI Hopkins N, Golling G, Amsterdam A, Sun Z;  
XX  
DR WPI; 2004-304692/28.  
DR N-PSDB; ADO57262.  
DR PC:NCBI; gi18858455.  
XX  
PT New 459 nucleic acids and encoded polypeptides, useful for diagnosing,  
PT treating or preventing a kidney disorder in an organism, or in screening  
PT for compounds that modulate the development of an organism.  
XX  
PS Disclosure; SEQ ID NO 30; 347pp; English.  
XX  
CC The invention describes an isolated nucleic acid molecule (I) comprising  
CC a sequence having at least 75% sequence identity to the 459 nucleic acid  
CC sequence of 2808 base pairs (SEQ ID NO: 59) given in the specification,  
CC over at least 600 contiguous base pairs, where the nucleic acid functions  
CC in kidney development. (I) is useful for treating or preventing a kidney  
CC disorder in an organism, where the nucleic acid elicits an alteration in  
CC expression of a 459 nucleic acid sequence in the organism and  
CC subsequently treats or prevents a kidney disorder. The nucleic acid may  
CC also be used in diagnosing, preventing and treating a variety of  
CC mammalian diseases and developmental disorders (e.g. circulatory  
CC disorders, hearing disorders, heart defect, infertility, stroke, mental  
CC retardation, muscle defects, proliferative disorders, or bone defects or  
CC disorders) as well as in screening for compounds that modulate the  
CC development of an organism as a whole or of specific tissues or organs  
CC within that organism. This is the amino acid sequence of a kidney  
CC development associated protein.  
CC  
CC Revised record issued on 15-JUN-2007 : Enhanced with precomputed  
CC information from BOND.  
XX  
SQ Sequence 177 AA;

Query Match 95.8%; Score 845; DB 1; Length 177;  
Best Local Similarity 93.2%;  
Matches 165; Conservative 11; Mismatches 1; Indels 0; Gaps 0;

Qy	1	MEALILEPSLYTVKAILILDNDGDRLF <del>AKYYDDT</del> YSPVKEQKAFEKNIFNKT <del>HRTDSEIA</del>	60
		:          :   :     :   :       :	
Db	1	MDTLILEPSLYTVKAVLIMDNGERLYAKYYDDTYPTVKEQKAFEKNIFNKT <del>HRTDSEIA</del>	60
Qy	61	LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQMLRKNVEKR <del>ALLENMEG</del>	120
		:	
Db	61	LLEGLTVVYKSNIDLYFYVIGSSHENELMLMSVLNCLFDSLSOMLRKNVEKR <del>ALLENMEG</del>	120



[Score Home Page](#) [Retrieve Application List](#) [SCORE System Overview](#) [SCORE FAQ Comments / Suggestions](#)

This page gives you Search Results detail for the Application 09556178 and Search Result 20101214\_103255\_us-09-556-178-5.rpr.

GenCore version 6.3  
Copyright (c) 1993 - 2010 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: December 14, 2010, 11:24:11 ; Search time 2 Seconds  
(without alignments)  
7139.284 Million cell updates/secTitle: US-09-556-178-5  
Perfect score: 882  
Sequence: 1 MEALILEPSLYTVKAILILD.....QTVSQVLQSAKEQIKWSLLR 177Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summariesDatabase : PIR\_80:\*  
1: pirl:\*  
2: pir2:\*  
3: pir3:\*  
4: pir4:\*

## SUMMARIES

Result No.	Score	% Match	Query Length	DB ID	Description
1	875	99.2	177	2 A49465	coatomer zeta chain
2	499	56.6	184	2 T23002	hypothetical prote
3	344	39.0	162	2 C96635	probable coatomer
4	308	34.9	189	2 S52521	coatomer protein z
5	299.5	34.0	190	2 T41417	coatomer zeta subu
6	267	30.3	153	2 T01831	hypothetical prote
7	141.5	16.0	145	2 T08407	clathrin coat asse
8	118	13.4	143	2 B84581	probable clathrin
9	117	13.3	446	2 S59646	clathrin coat asse
10	116	13.2	194	2 S56796	YAP19 protein homo
11	112.5	12.8	141	2 C71605	clathrin coat asse
12	108	12.2	157	2 T31801	hypothetical prote
13	106.5	12.1	143	2 T40635	clathrin coat asse
14	99	11.2	165	2 S62563	adaptin complex sm
15	98	11.1	1472	2 S67195	probable membrane
16	97.5	11.1	441	2 B49837	clathrin-associate
17	90.5	10.3	214	2 S51405	synaptobrevin SEC2
18	90	10.2	1271	2 T08607	hypothetical prote
19	88.5	10.0	290	2 C96911	transcription regu
20	87.5	9.9	475	2 S65290	clathrin-associate
21	86	9.8	158	2 A40535	clathrin-associate
22	86	9.8	161	2 E84551	clathrin assembly
23	86	9.8	162	2 T06116	probable clathrin-
24	85.5	9.7	663	2 B70460	excinuclease ABC c
25	85.5	9.7	699	2 T18984	hypothetical prote
26	85	9.6	380	2 D64129	probable 8-amino-7
27	84.5	9.6	439	2 S78378	maturase-like prot
28	84.5	9.6	863	2 B72344	tRNA nucleotidyl t
29	84	9.5	132	2 T02991	clathrin coat asse
30	84	9.5	142	2 T15957	hypothetical prote
31	83.5	9.5	412	2 E97736	mitochondrial prot
32	83	9.4	142	2 B40535	clathrin-associate
33	83	9.4	156	2 S37757	clathrin-associate
34	83	9.4	410	2 S64451	hypothetical prote
35	83	9.4	896	2 T47645	centromere protein
36	82.5	9.4	324	2 C90492	hypothetical prote
37	82.5	9.4	569	1 D64215	conserved hypothet
38	82.5	9.4	909	2 AG3314	excinuclease ABC c
39	82.5	9.4	1104	2 S36773	GTPase-activating
40	82	9.3	416	2 D70347	cell division prot
41	82	9.3	659	2 G81334	probable N-acetylm
42	82	9.3	686	2 T23721	hypothetical prote
43	82	9.3	725	2 G90555	vacb-like (shigell
44	82	9.3	803	1 E70041	probable copper-tr
45	82	9.3	1130	2 T21134	hypothetical prote

## ALIGNMENTS

## RESULT 1

A49465  
coatomer zeta chain - bovine  
C;Species: Bos primigenius taurus (cattle)  
C;Date: 03-May-1994 #sequence\_revision 03-May-1994 #text\_change 09-Jul-2004  
C;Accession: A49465  
R;Kuge, O.; Hara-Kuge, S.; Orci, L.; Ravazzola, M.; Amherdt, M.; Tanigawa, G.; Wieland, F.T.; Rothman, J.E.  
J. Cell Biol. 123, 1727-1734, 1993  
A;Title: zeta-COP, a subunit of coatomer, is required for COP-coated vesicle assembly.  
A;Reference number: A49465; MUID:94103328; PMID:8276893  
A;Accession: A49465  
A;Status: preliminary  
A;Molecule type: mRNA

A;Residues: 1-177 <KUG>  
A;Cross-references: UNIPROT:P35604; UNIPARC:UPI0000127EF0; GB:X75935; NID:g441485; PIDN:CAA53539.1; PID:g441486  
C;Superfamily: Vesicle coat complex COPI, zeta subunit

Query Match 99.2%; Score 875; DB 2; Length 177;  
Best Local Similarity 98.9%;  
Matches 175; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy	1	MEALILPEPSLYTKVAILILNDNGDRLFAKYDDTYPSPVKEQKAFEKNIFNKTHRTDSEIA	60
Db	1	MEALILQPSLYTKVAILILNDNGDRLFAKYDDTYPSPVKEQKAFEKNIFNKTHRTDSEIA	60
Qy	61	LLEGLTVVYKSSIDLYFYVIGSSYENELMMAVLNCLFDSLQMLRKNVEKRALLENMEG	120
Db	61	LLEGLTVVYKSSIDLYFYVIGSSYENELMTVLNCLFDSLQMLRKNVEKRALLENMEG	120
Qy	121	LFLAVDEIVDGGVILESDPQQVVHVRALRGEDVPLTEQTQVSQVLQSAKEQIKWSLLR	177
Db	121	LFLAVDEIVDGGVILESDPQQVVHVRALRGEDVPLTEQTQVSQVLQSAKEQIKWSLLR	177

## RESULT 2

T23002  
hypothetical protein F59E10.3 - *Caenorhabditis elegans*  
C:Species: *Caenorhabditis elegans*  
C:Date: 15-Oct-1999 #sequence\_revision 15-Oct-1999 #text\_change 09-Jul-2004  
C:Accession: T23002  
R:Swinburne, J.  
submitted to the EMBL Data Library, September 1994  
A:Reference number: Z19650  
A:Accession: T23002  
A>Status: preliminary; translated from GB/EMBL/DDBJ  
A:Molecule type: DNA  
A:Residues: 1-184 <WIL>  
A:Cross-references: UNIPROT:O17901; UNIPARC:UPI0000127EF1; EMBL:Z36949; PIDN:CAA85416.1; GSPDB:GN00020; CESP:F59E10.3  
A:Experimental source: clone F59E10  
C:Genetics:  
A:Gene: CESP:F59E10.3  
A:Map position: 2  
A:Introns: 6/3; 30/3; 60/1; 135/2  
C:Superfamily: Vesicle coat complex COPI, zeta subunit

Query Match 56.6%; Score 499; DB 2; Length 184;  
Best Local Similarity 54.9%;  
Matches 96; Conservative 44; Mismatches 29; Indels 6; Gaps 3;

[illegible]

### RESULT 3

C96635  
probable coatomer zeta subunit T7P1.11 [imported] - Arabidopsis thaliana  
C;Species: Arabidopsis thaliana (mouse-ear cress)  
C;Date: 02-Mar-2001 #sequence\_revision 02-Mar-2001 #text\_change 09-Jul-2004  
C;Accession: C96635  
R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alonso, J.; Altamirano, H.; Araujo, R.; Bowman, C.L.; Brooks, S.Y.; Buehler, E.; Chan, I.  
Nature 408, 816-820, 2000  
A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.J.; Koo, H.L.; Kremetskaia, I.; Kurtz, D.B.; Kwan, A.; Lam, B.; Langin-Hoc  
A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, L.J.; Tambunga, G.; Toriumi, M.J.; Town, C.D.; Utterback, T.; van Aken, S.;  
A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.  
A;Reference number: A86141; MUID:21016719; PMID:11130712  
A;Accession: C96635  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-162 <STO>  
A;Cross-references: UNIPROT:Q9C956; UNIPARC:UPI000009CDAC; GB:AE005173; NID:g6751687; PIDN:AAF27670.1; GSPDB:GN00141  
C;Genetics:  
A;Gene: T7P1.11  
A;Map position: 1  
A;Superfamily: Vesicle coat complex COPI, zeta subunit

Query Match 39.0%; Score 344; DB 2; Length 162;  
Best Local Similarity 45.4%;  
Matches 69; Conservative 33; Mismatches 44; Indels 6; Gaps 2;

Qy	13	VKAILLLDNDGRLFAKYDDTYPYSKEQFAKEKINFKTH---RTDSEIALLGLTV	68
Db	7	VKNILLDSEGRKRVAKYYSDDWPNTSAQEAFAKSVFTKTQKTNARTEVEVTALENNIV	66
Qy	69	YKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEGLFLAVDEI	128
Db	67	YKFVQDLHFVFTGGEENELILASVLEGLFDAVTLLLRSNVKREALDNLDFLSQDEI	126
Qy	129	VDGGVILESDPQQVVRHVALRGED--VPLTEQ	158
Db	127	IDGGIVLETDANVIAGKAGINSTDPNAPLSEI	158

#### RESULT 4

S52521  
coatomer protein zeta chain - yeast (*Saccharomyces cerevisiae*)  
N;Alternate names: protein LPA7w; protein YP8132.03; protein YPL010w; zeta-COP  
C;Species: *Saccharomyces cerevisiae*  
C;Date: 08-May-1995 #sequence\_revision 21-Jul-1995 #text\_change 09-Jul-2004  
C;Accession: S52521; S59683; JC5152  
R;Badcock, K.; Churcher, C.  
submitted to the EMBL Data Library, February 1995  
A;Reference number: S52519  
A;Accession: S52521  
A;Molecule type: DNA  
A;Residues: 1-189 <BAD>  
A;Cross-references: UNIPROT:P53600; UNIPARC:UPI000005319F; EMBL:Z48483; NID:g683777; PIDN:CAA88376.1; PID:g683780; MIPS:YPL010w

# SCORE Search Results Details for Application 09556178 and Search Result 20101214\_103254\_us-09-556-178-5.rup.

[Score Home Page](#) [Retrieve Application List](#) [SCORE System Overview](#) [SCORE FAQ](#) [Comments / Suggestions](#)

This page gives you Search Results detail for the Application 09556178 and Search Result 20101214\_103254\_us-09-556-178-5.rup.

[Go Back to previous page](#)

GenCore version 6.3  
Copyright (c) 1993 - 2010 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: December 14, 2010, 11:23:42 ; Search time 96 Seconds  
(without alignments)  
7637.199 Million cell updates/sec

Title: US-09-556-178-5  
Perfect score: 882  
Sequence: 1 MEALILEPSLYTVKAILILD.....QTVSQVLQSAKEQIKWSSLR 177

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 12869322 seqs, 4158259533 residues

Total number of hits satisfying chosen parameters: 12869322

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : UniProt\_201011:\*  
1: uniprot\_sprot:\*  
2: uniprot\_trembl:\*  
SUMMARIES

		%				
Result		Query				
No.	Score	Match	Length	DB	ID	Description
1	882	100.0	177	1	COPZ1_HUMAN	P61923 RecName: Fu
2	882	100.0	177	1	COPZ1_MOUSE	P61924 RecName: Fu
3	882	100.0	177	1	COPZ1_PONAB	Q5r5f2 RecName: Fu
4	882	100.0	177	2	D4A8T3_RAT	D4a8t3 SubName: Fu
5	882	100.0	177	2	Q542M2_MOUSE	Q542m2 SubName: Fu
6	878	99.5	177	1	COPZ1_BOVIN	P35604 RecName: Fu
7	877	99.4	177	2	Q53FU3_HUMAN	Q53fu3 SubName: Fu
8	847	96.0	177	2	Q28HL1_XENTR	Q28hl1 SubName: Fu
9	846	95.9	177	2	A0AUT9_XENLA	A0aut9 SubName: Fu
10	846	95.9	187	2	Q801P3_XENLA	Q801p3 SubName: Fu
11	845	95.8	177	2	Q9IB48_DANRE	Q9ib48 SubName: Fu
12	843	95.6	177	2	Q6GQG0_XENLA	Q6gqg0 SubName: Fu
13	842	95.5	177	2	Q7SXH1_DANRE	Q7sxh1 SubName: Fu
14	836	94.8	177	2	C3KJY4_ANOFI	C3kjy4 SubName: Fu
15	832	94.3	177	2	B5X5K5_SALSA	B5x5k5 SubName: Fu

16	832	94.3	179	2	C1BY80_ESOLU	C1by80	SubName: Fu
17	828	93.9	177	2	B5X8E4_SALSA	B5x8e4	SubName: Fu
18	828	93.9	177	2	C1BHI5_ONCMY	C1bhi5	SubName: Fu
19	828	93.9	177	2	C3KJ46_ANOFI	C3kj46	SubName: Fu
20	825	93.5	177	2	B9EM01_SALSA	B9em01	SubName: Fu
21	819	92.9	175	2	C1BFE7_ONCMY	C1bfe7	SubName: Fu
22	815	92.4	174	2	B5X954_SALSA	B5x954	SubName: Fu
23	814	92.3	177	2	C1BH82_ONCMY	C1bh82	SubName: Fu
24	813	92.2	163	2	Q8R3M1_MOUSE	Q8r3m1	SubName: Fu
25	810	91.8	177	2	B5XDE2_SALSA	B5xde2	SubName: Fu
26	745.5	84.5	154	2	B4DDX8_HUMAN	B4ddx8	SubName: Fu
27	701.5	79.5	173	2	Q9IB47_DANRE	Q9ib47	SubName: Fu
28	692	78.5	189	2	Q6DKF5_DANRE	Q6dkf5	SubName: Fu
29	683.5	77.5	229	2	C3XTB6_BRAFL	C3xtb6	SubName: Fu
30	673.5	76.4	178	2	B9EQ95_SALSA	B9eq95	SubName: Fu
31	673	76.3	179	2	B9EPB0_SALSA	B9epb0	SubName: Fu
32	673	76.3	210	1	COPZ2_HUMAN	Q9p299	RecName: Fu
33	667	75.6	205	1	COPZ2_MOUSE	Q9jhh9	RecName: Fu
34	666.5	75.6	178	2	C1BHL1_ONCMY	C1bhl1	SubName: Fu
35	664	75.3	203	2	C1BFJ5_ONCMY	C1bfj5	SubName: Fu
36	663	75.2	185	2	Q9CTG7_MOUSE	Q9ctg7	SubName: Fu
37	649	73.6	156	2	Q6P383_XENTR	Q6p383	SubName: Fu
38	625.5	70.9	178	2	E0VA85_PEDHC	E0va85	SubName: Fu
39	623	70.6	183	2	A7S1D0_NEMVE	A7s1d0	SubName: Fu
40	621.5	70.5	177	2	Q16K41_AEDAE	Q16k41	SubName: Fu
41	620.5	70.4	177	2	B0W863_CULQU	B0w863	SubName: Fu
42	620.5	70.4	182	2	D6WPS8_TRICA	D6wps8	SubName: Fu
43	620	70.3	181	2	Q16K40_AEDAE	Q16k40	SubName: Fu
44	619.5	70.2	178	2	C4WUX3_ACYPI	C4wux3	SubName: Fu
45	612.5	69.4	177	2	Q7Q5C2_ANOGA	Q7q5c2	SubName: Fu

## ALIGNMENTS

## RESULT 1

## COPZ1\_HUMAN

ID COPZ1\_HUMAN Reviewed; 177 AA.  
AC P61923; Q549N6; Q9Y3C3;  
DT 07-JUN-2004, integrated into UniProtKB/Swiss-Prot.  
DT 07-JUN-2004, sequence version 1.  
DT 05-OCT-2010, entry version 66.  
DE RecName: Full=Coatomer subunit zeta-1;  
DE AltName: Full=Zeta-1-coat protein;  
DE Short=Zeta-1 COP;  
GN Name=COPZ1; Synonyms=COPZ; ORFNames=CGI-120, HSPC181;  
OS Homo sapiens (Human).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Euarchontoglires; Primates; Haplorrhini;  
OC Catarrhini; Hominidae; Homo.  
OX NCBI\_TaxID=9606;  
RN [1]  
RP NUCLEOTIDE SEQUENCE [MRNA].  
RX MEDLINE=20512057; PubMed=11056392;  
RA Futatsumori M., Kasai K., Takatsu H., Shin H.-W., Nakayama K.;  
RT "Identification and characterization of novel isoforms of COP I  
RT subunits.";  
RL J. Biochem. 128:793-801(2000).  
RN [2]  
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].  
RX MEDLINE=20272150; PubMed=10810093; DOI=10.1101/gr.10.5.703;  
RA Lai C.-H., Chou C.-Y., Ch'ang L.-Y., Liu C.-S., Lin W.-C.;  
RT "Identification of novel human genes evolutionarily conserved in  
RT Caenorhabditis elegans by comparative proteomics.";  
RL Genome Res. 10:703-713(2000).  
RN [3]  
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].



RC TISSUE=Umbilical cord blood;  
RX MEDLINE=20499367; PubMed=11042152; DOI=10.1101/gr.140200;  
RA Zhang Q.-H., Ye M., Wu X.-Y., Ren S.-X., Zhao M., Zhao C.-J., Fu G.,  
RA Shen Y., Fan H.-Y., Lu G., Zhong M., Xu X.-R., Han Z.-G., Zhang J.-W.,  
RA Tao J., Huang Q.-H., Zhou J., Hu G.-X., Gu J., Chen S.-J., Chen Z.;  
RT "Cloning and functional analysis of cDNAs with open reading frames for  
RT 300 previously undefined genes expressed in CD34+ hematopoietic  
RT stem/progenitor cells.";  
RL Genome Res. 10:1546-1560(2000).  
RN [4]  
RP NUCLEOTIDE SEQUENCE [MRNA].  
RA Tu Q., Yu L., Hu P.R., Zhang H.L., Huang J., Zhao S.Y.;  
RT "Cloning and expression of a new human cDNA homology to B.taurus z-cop  
RT mRNA.";  
RL Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases.  
RN [5]  
RP NUCLEOTIDE SEQUENCE [LARGE SCALE GENOMIC DNA].  
RA Mural R.J., Istrail S., Sutton G.G., Florea L., Halpern A.L.,  
RA Mobarry C.M., Lippert R., Walenz B., Shatkay H., Dew I., Miller J.R.,  
RA Flanigan M.J., Edwards N.J., Bolanos R., Fasulo D., Halldorsson B.V.,  
RA Hannenhalli S., Turner R., Yooseph S., Lu F., Nusskern D.R.,  
RA Shue B.C., Zheng X.H., Zhong F., Delcher A.L., Huson D.H.,  
RA Kravitz S.A., Mouchard L., Reinert K., Remington K.A., Clark A.G.,  
RA Waterman M.S., Eichler E.E., Adams M.D., Hunkapiller M.W., Myers E.W.,  
RA Venter J.C.;  
RL Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.  
RN [6]  
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].  
RC TISSUE=Placenta;  
RX PubMed=15489334; DOI=10.1101/gr.2596504;  
RG The MGC Project Team;  
RT "The status, quality, and expansion of the NIH full-length cDNA  
RT project: the Mammalian Gene Collection (MGC).";  
RL Genome Res. 14:2121-2127(2004).  
RN [7]  
RP PROTEIN SEQUENCE OF 1-14, ACETYLATION AT MET-1, AND MASS SPECTROMETRY.  
RC TISSUE=Colon carcinoma;  
RA Bienvenut W.V., Zebisch A., Kolch W.;  
RL Submitted (DEC-2008) to UniProtKB.  
RN [8]  
RP PHOSPHORYLATION [LARGE SCALE ANALYSIS] AT SER-161, AND MASS  
RP SPECTROMETRY.  
RC TISSUE=Embryonic kidney;  
RX PubMed=17525332; DOI=10.1126/science.1140321;  
RA Matsuoka S., Ballif B.A., Smogorzewska A., McDonald E.R. III,  
RA Hurov K.E., Luo J., Bakalarski C.E., Zhao Z., Solimini N.,  
RA Lerenthal Y., Shiloh Y., Gygi S.P., Elledge S.J.;  
RT "ATM and ATR substrate analysis reveals extensive protein networks  
RT responsive to DNA damage.";  
RL Science 316:1160-1166(2007).  
RN [9]  
RP IDENTIFICATION BY MASS SPECTROMETRY [LARGE SCALE ANALYSIS].  
RA Colinge J., Superti-Furga G., Bennett K.L.;  
RL Submitted (OCT-2008) to UniProtKB.  
RN [10]  
RP ACETYLATION [LARGE SCALE ANALYSIS] AT MET-1, AND MASS SPECTROMETRY.  
RC TISSUE=Embryonic kidney;  
RX PubMed=19413330; DOI=10.1021/ac9004309;  
RA Gauci S., Helbig A.O., Slijper M., Krijgsveld J., Heck A.J.,  
RA Mohammed S.;  
RT "Lys-N and trypsin cover complementary parts of the phosphoproteome in  
RT a refined SCX-based approach.";  
RL Anal. Chem. 81:4493-4501(2009).  
RN [11]  
RP STRUCTURE BY NMR.  
RA Yu W., Jin C., Xia B.;  
RT "The NMR structure of human zeta-COP.";

```

RL Submitted (JUN-2007) to the PDB data bank.
CC -!- FUNCTION: The coatomer is a cytosolic protein complex that binds
CC to dilysine motifs and reversibly associates with Golgi non-
CC clathrin-coated vesicles, which further mediate biosynthetic
CC protein transport from the ER, via the Golgi up to the trans Golgi
CC network. Coatomer complex is required for budding from Golgi
CC membranes, and is essential for the retrograde Golgi-to-ER
CC transport of dilysine-tagged proteins. In mammals, the coatomer
CC can only be recruited by membranes associated to ADP-ribosylation
CC factors (ARFs), which are small GTP-binding proteins; the complex
CC also influences the Golgi structural integrity, as well as the
CC processing, activity, and endocytic recycling of LDL receptors (By
CC similarity).
CC -!- FUNCTION: The zeta subunit may be involved in regulating the coat
CC assembly and, hence, the rate of biosynthetic protein transport
CC due to its association-dissociation properties with the coatomer
CC complex.
CC -!- SUBUNIT: Oligomeric complex that consists of at least the alpha,
CC beta, beta', gamma, delta, epsilon and zeta subunits.
CC -!- SUBCELLULAR LOCATION: Cytoplasm (By similarity). Golgi apparatus
CC membrane; Peripheral membrane protein; Cytoplasmic side (By
CC similarity). Cytoplasmic vesicle, COPI-coated vesicle membrane;
CC Peripheral membrane protein; Cytoplasmic side (By similarity).
CC Note=The coatomer is cytoplasmic or polymerized on the cytoplasmic
CC side of the Golgi, as well as on the vesicles/buds originating
CC from it (By similarity).
CC -!- PTM: Phosphorylated upon DNA damage, probably by ATM or ATR.
CC -!- SIMILARITY: Belongs to the adaptor complexes small subunit family.
CC -----
CC Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms
CC Distributed under the Creative Commons Attribution-NoDerivs License
CC -----
DR EMBL; AB047848; BAB17659.1; -; mRNA.
DR EMBL; AF151878; AAD34115.1; -; mRNA.
DR EMBL; AF161529; AAF29144.1; -; mRNA.
DR EMBL; AF086911; AAP97141.1; -; mRNA.
DR EMBL; CH471054; EAW96774.1; -; Genomic_DNA.
DR EMBL; BC002849; AAH02849.1; -; mRNA.
DR IPI; IPI00032851; -.
DR RefSeq; NP_057141.1; -.
DR UniGene; Hs.505652; -.
DR PDB; 2HF6; NMR; -; A=1-149.
DR PDBsum; 2HF6; -.
DR ProteinModelPortal; P61923; -.
DR DIP; DIP-29873N; -.
DR IntAct; P61923; 3.
DR STRING; P61923; -.
DR PhosphoSite; P61923; -.
DR PRIDE; P61923; -.
DR Ensembl; ENST00000262061; ENSP00000262061; ENSG00000111481.
DR GeneID; 22818; -.
DR KEGG; hsa:22818; -.
DR UCSC; uc001sfs.1; human.
DR CTD; 22818; -.
DR GeneCards; GC12P054718; -.
DR H-InvDB; HIX0010694; -.
DR HGNC; HGNC:2243; COPZ1.
DR PharmGKB; PA26760; -.
DR eggNOG; prNOG08087; -.
DR HOGENOM; HBG326766; -.
DR HOVERGEN; HBG051077; -.
DR InParanoid; P61923; -.
DR OMA; YDDTYPT; -.
DR PhylomeDB; P61923; -.
DR Reactome; REACT_11123; Membrane Trafficking.
DR NextBio; 43208; -.
DR ArrayExpress; P61923; -.

```



OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;  
OC Muroidea; Muridae; Murinae; Mus; Mus.  
OX NCBI\_TaxID=10090;  
RN [1]  
RP NUCLEOTIDE SEQUENCE [MRNA].  
RA Hahn Y., Chung J.H.;  
RT "Murine Copz1 gene encoding nonclathrin coat protein zeta-COP.";  
RL Submitted (JAN-2000) to the EMBL/GenBank/DDBJ databases.  
RN [2]  
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].  
RC STRAIN=C57BL/6J;  
RX PubMed=16141072; DOI=10.1126/science.1112014;  
RA Carninci P., Kasukawa T., Katayama S., Gough J., Frith M.C., Maeda N.,  
RA Oyama R., Ravasi T., Lenhard B., Wells C., Kodzius R., Shimokawa K.,  
RA Bajic V.B., Brenner S.E., Batalov S., Forrest A.R., Zavolan M.,  
RA Davis M.J., Wilming L.G., Aidinis V., Allen J.E.,  
RA Ambesi-Impimombato A., Apweiler R., Aturaliya R.N., Bailey T.L.,  
RA Bansal M., Baxter L., Beisel K.W., Bersano T., Bono H., Chalk A.M.,  
RA Chiu K.P., Choudhary V., Christoffels A., Clutterbuck D.R.,  
RA Crowe M.L., Dalla E., Dalrymple B.P., de Bono B., Della Gatta G.,  
RA di Bernardo D., Down T., Engstrom P., Fagiolini M., Faulkner G.,  
RA Fletcher C.F., Fukushima T., Furuno M., Futaki S., Gariboldi M.,  
RA Georgii-Hemming P., Gingeras T.R., Gojobori T., Green R.E.,  
RA Gustincich S., Harbers M., Hayashi Y., Hensch T.K., Hirokawa N.,  
RA Hill D., Huminiecki L., Iacono M., Ikeo K., Iwama A., Ishikawa T.,  
RA Jakt M., Kanapin A., Katoh M., Kawasaki Y., Kelso J., Kitamura H.,  
RA Kitano H., Kollias G., Krishnan S.P., Kruger A., Kummerfeld S.K.,  
RA Kurochkin I.V., Lareau L.F., Lazarevic D., Lipovich L., Liu J.,  
RA Liuni S., McWilliam S., Madan Babu M., Madera M., Marchionni L.,  
RA Matsuda H., Matsuzawa S., Miki H., Mignone F., Miyake S., Morris K.,  
RA Mottagui-Tabar S., Mulder N., Nakano N., Nakauchi H., Ng P.,  
RA Nilsson R., Nishiguchi S., Nishikawa S., Nori F., Ohara O.,  
RA Okazaki Y., Orlando V., Pang K.C., Pavan W.J., Pavesi G., Pesole G.,  
RA Petrovsky N., Piazza S., Reed J., Reid J.F., Ring B.Z., Ringwald M.,  
RA Rost B., Ruan Y., Salzberg S.L., Sandelin A., Schneider C.,  
RA Schoenbach C., Sekiguchi K., Semple C.A., Seno S., Sessa L., Sheng Y.,  
RA Shibata Y., Shimada H., Shimada K., Silva D., Sinclair B.,  
RA Sperling S., Stupka E., Sugiura K., Sultana R., Takenaka Y., Taki K.,  
RA Tammoja K., Tan S.L., Tang S., Taylor M.S., Tegner J., Teichmann S.A.,  
RA Ueda H.R., van Nimwegen E., Verardo R., Wei C.L., Yagi K.,  
RA Yamanishi H., Zabarovsky E., Zhu S., Zimmer A., Hide W., Bult C.,  
RA Grimmond S.M., Teasdale R.D., Liu E.T., Brusic V., Quackenbush J.,  
RA Wahlestedt C., Mattick J.S., Hume D.A., Kai C., Sasaki D., Tomaru Y.,  
RA Fukuda S., Kanamori-Katayama M., Suzuki M., Aoki J., Arakawa T.,  
RA Iida J., Imamura K., Itoh M., Kato T., Kawaji H., Kawagashira N.,  
RA Kawashima T., Kojima M., Kondo S., Konno H., Nakano K., Ninomiya N.,  
RA Nishio T., Okada M., Plessy C., Shibata K., Shiraki T., Suzuki S.,  
RA Tagami M., Waki K., Watahiki A., Okamura-Oho Y., Suzuki H., Kawai J.,  
RA Hayashizaki Y.;  
RT "The transcriptional landscape of the mammalian genome.";  
RL Science 309:1559-1563(2005).  
RN [3]  
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].  
RC STRAIN=C57BL/6, and C57BL/6J; TISSUE=Brain, and Embryo;  
RX PubMed=15489334; DOI=10.1101/gr.2596504;  
RG The MGC Project Team;  
RT "The status, quality, and expansion of the NIH full-length cDNA  
RT project: the Mammalian Gene Collection (MGC).";  
RL Genome Res. 14:2121-2127(2004).  
CC -!- FUNCTION: The coatomer is a cytosolic protein complex that binds  
CC to dilysine motifs and reversibly associates with Golgi non-  
CC clathrin-coated vesicles, which further mediate biosynthetic  
CC protein transport from the ER, via the Golgi up to the trans Golgi  
CC network. Coatomer complex is required for budding from Golgi  
CC membranes, and is essential for the retrograde Golgi-to-ER  
CC transport of dilysine-tagged proteins. In mammals, the coatomer  
CC can only be recruited by membranes associated to ADP-ribosylation

CC factors (ARFs), which are small GTP-binding proteins; the complex  
CC also influences the Golgi structural integrity, as well as the  
CC processing, activity, and endocytic recycling of LDL receptors (By  
CC similarity).

CC -!- FUNCTION: The zeta subunit may be involved in regulating the coat  
CC assembly and, hence, the rate of biosynthetic protein transport  
CC due to its association-dissociation properties with the coatomer  
CC complex (By similarity).

CC -!- SUBUNIT: Oligomeric complex that consists of at least the alpha,  
CC beta, beta', gamma, delta, epsilon and zeta subunits (By  
CC similarity).

CC -!- SUBCELLULAR LOCATION: Cytoplasm (By similarity). Golgi apparatus  
CC membrane; Peripheral membrane protein; Cytoplasmic side (By  
CC similarity). Cytoplasmic vesicle, COPI-coated vesicle membrane;  
CC Peripheral membrane protein; Cytoplasmic side (By similarity).  
CC Note=The coatomer is cytoplasmic or polymerized on the cytoplasmic  
CC side of the Golgi, as well as on the vesicles/buds originating  
CC from it (By similarity).

CC -!- PTM: Phosphorylated upon DNA damage, probably by ATM or ATR (By  
CC similarity).

CC -!- SIMILARITY: Belongs to the adaptor complexes small subunit family.

CC -----

CC Copyrighted by the UniProt Consortium, see <http://www.uniprot.org/terms>  
CC Distributed under the Creative Commons Attribution-NoDerivs License  
CC -----

DR EMBL; AB037370; BAA90303.1; -; mRNA.  
DR EMBL; AK003302; BAB22703.1; -; mRNA.  
DR EMBL; BC002246; -; NOT\_ANNOTATED\_CDS; mRNA.  
DR EMBL; BC058524; AAH58524.1; -; mRNA.  
DR EMBL; BC085314; AAH85314.1; -; mRNA.  
DR IPI; IPI00139637; -.  
DR RefSeq; NP\_062791.1; -.  
DR UniGene; Mm.29473; -.  
DR ProteinModelPortal; P61924; -.  
DR SMR; P61924; 1-149.  
DR STRING; P61924; -.  
DR PhosphoSite; P61924; -.  
DR PRIDE; P61924; -.  
DR Ensembl; ENSMUST00000100162; ENSMUSP00000097738; ENSMUSG00000060992.  
DR GeneID; 56447; -.  
DR KEGG; mmu:56447; -.  
DR UCSC; uc007xxv.1; mouse.  
DR CTD; 56447; -.  
DR MGI; MGI:1929063; Copz1.  
DR eggNOG; roNOG15155; -.  
DR HOGENOM; HBG326766; -.  
DR HOVERGEN; HBG051077; -.  
DR InParanoid; P61924; -.  
DR OMA; YDDTYPT; -.  
DR PhylomeDB; P61924; -.  
DR NextBio; 312654; -.  
DR ArrayExpress; P61924; -.  
DR Bgee; P61924; -.  
DR CleanEx; MM\_COPZ1; -.  
DR Genevestigator; P61924; -.  
DR GermOnline; ENSMUSG00000060992; Mus musculus.  
DR GO; GO:0030126; C:COPI vesicle coat; ISS:UniProtKB.  
DR GO; GO:0005515; F:protein binding; IEA:InterPro.  
DR GO; GO:0006891; P:intra-Golgi vesicle-mediated transport; ISS:UniProtKB.  
DR GO; GO:0006886; P:intracellular protein transport; IEA:InterPro.  
DR InterPro; IPR022775; AP\_mu\_sigma\_su.  
DR InterPro; IPR000804; Clathrin\_sm-chain\_CS.  
DR InterPro; IPR011012; Longin-like.  
DR Pfam; PF01217; Clat\_adaptor\_s; 1.  
DR SUPFAM; SSF64356; Longin\_like; 1.  
DR PROSITE; PS00989; CLAT\_ADAPTOR\_S; 1.  
PE 2: Evidence at transcript level;

KW Acetylation; Cytoplasm; Cytoplasmic vesicle; ER-Golgi transport;  
 KW Golgi apparatus; Membrane; Phosphoprotein; Protein transport;  
 KW Transport.  
 FT CHAIN 1 177 Coatomer subunit zeta-1.  
 FT /FTId=PRO\_0000193826.  
 FT MOD\_RES 1 1 N-acetylmethionine (By similarity).  
 FT MOD\_RES 161 161 Phosphoserine (By similarity).  
 SQ SEQUENCE 177 AA; 20198 MW; 355530D032D3A049 CRC64;

Query Match 100.0%; Score 882; DB 1; Length 177;  
 Best Local Similarity 100.0%;  
 Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MEALILEPSLYTVKAILILDNDGDRLFACYDDTYPVKEQKAFKKNIFNKTHTDSEIA 60  
 |||  
 Db 1 MEALILEPSLYTVKAILILDNDGDRLFACYDDTYPVKEQKAFKKNIFNKTHTDSEIA 60  
  
 Qy 61 LLEGLTVVYKSSIDLIFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120  
 |||  
 Db 61 LLEGLTVVYKSSIDLIFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120  
  
 Qy 121 LFLAVDEIVDGGVILESDPQQVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177  
 |||  
 Db 121 LFLAVDEIVDGGVILESDPQQVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177

## RESULT 3

## COPZ1\_PONAB

ID COPZ1\_PONAB Reviewed; 177 AA.  
 AC Q5R5F2;  
 DT 13-SEP-2005, integrated into UniProtKB/Swiss-Prot.  
 DT 21-DEC-2004, sequence version 1.  
 DT 05-OCT-2010, entry version 37.  
 DE RecName: Full=Coatomer subunit zeta-1;  
 DE AltName: Full=Zeta-1-coat protein;  
 DE Short=Zeta-1 COP;  
 GN Name=COPZ1; Synonyms=COPZ;  
 OS Pongo abelii (Sumatran orangutan).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Haplorrhini;  
 OC Catarrhini; Hominidae; Pongo.  
 OX NCBI\_TaxID=9601;  
 RN [1]  
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].  
 RC TISSUE=Kidney;  
 RG The German cDNA consortium;  
 RL Submitted (NOV-2004) to the EMBL/GenBank/DDBJ databases.  
 CC -!- FUNCTION: The coatomer is a cytosolic protein complex that binds  
 CC to dilysine motifs and reversibly associates with Golgi non-  
 CC clathrin-coated vesicles, which further mediate biosynthetic  
 CC protein transport from the ER, via the Golgi up to the trans Golgi  
 CC network. Coatomer complex is required for budding from Golgi  
 CC membranes, and is essential for the retrograde Golgi-to-ER  
 CC transport of dilysine-tagged proteins. In mammals, the coatomer  
 CC can only be recruited by membranes associated to ADP-ribosylation  
 CC factors (ARFs), which are small GTP-binding proteins; the complex  
 CC also influences the Golgi structural integrity, as well as the  
 CC processing, activity, and endocytic recycling of LDL receptors (By  
 CC similarity).  
 CC -!- FUNCTION: The zeta subunit may be involved in regulating the coat  
 CC assembly and, hence, the rate of biosynthetic protein transport  
 CC due to its association-dissociation properties with the coatomer  
 CC complex (By similarity).  
 CC -!- SUBUNIT: Oligomeric complex that consists of at least the alpha,  
 CC beta, beta', gamma, delta, epsilon and zeta subunits (By  
 CC similarity).  
 CC -!- SUBCELLULAR LOCATION: Cytoplasm (By similarity). Golgi apparatus

```

CC      membrane; Peripheral membrane protein; Cytoplasmic side (By
CC      similarity). Cytoplasmic vesicle, COPI-coated vesicle membrane;
CC      Peripheral membrane protein; Cytoplasmic side (By similarity).
CC      Note=The coatomer is cytoplasmic or polymerized on the cytoplasmic
CC      side of the Golgi, as well as on the vesicles/buds originating
CC      from it (By similarity).
CC      -!- PTM: Phosphorylated upon DNA damage, probably by ATM or ATR (By
CC      similarity).
CC      -!- SIMILARITY: Belongs to the adaptor complexes small subunit family.
CC      -----
CC      Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms
CC      Distributed under the Creative Commons Attribution-NoDerivs License
CC      -----
DR      EMBL; CR860909; CAH93014.1; -; mRNA.
DR      RefSeq; NP_001127620.1; -.
DR      UniGene; Pab.18608; -.
DR      ProteinModelPortal; Q5R5F2; -.
DR      SMR; Q5R5F2; 1-149.
DR      GeneID; 100174699; -.
DR      CTD; 100174699; -.
DR      HOVERGEN; HBG051077; -.
DR      InParanoid; Q5R5F2; -.
DR      OMA; YDDTYPT; -.
DR      OrthoDB; EOG969TD6; -.
DR      GO; GO:0030126; C:COPI vesicle coat; ISS:UniProtKB.
DR      GO; GO:0005515; F:protein binding; IEA:InterPro.
DR      GO; GO:0006891; P:intra-Golgi vesicle-mediated transport; ISS:UniProtKB.
DR      GO; GO:0006886; P:intracellular protein transport; IEA:InterPro.
DR      InterPro; IPR022775; AP_mu_sigma_su.
DR      InterPro; IPR000804; Clathrin_sm-chain_CS.
DR      InterPro; IPR011012; Longin-like.
DR      Pfam; PF01217; Clat_adaptor_s; 1.
DR      SUPFAM; SSF64356; Longin_like; 1.
DR      PROSITE; PS00989; CLAT_ADAPTOR_S; 1.
PE      2: Evidence at transcript level;
KW      Acetylation; Cytoplasm; Cytoplasmic vesicle; ER-Golgi transport;
KW      Golgi apparatus; Membrane; Phosphoprotein; Protein transport;
KW      Transport.
FT      CHAIN           1       177       Coatomer subunit zeta-1.
FT                                     /FTId=PRO_0000193827.
FT      MOD_RES         1         1       N-acetylmethionine (By similarity).
FT      MOD_RES        161       161       Phosphoserine (By similarity).
SQ      SEQUENCE      177 AA;  20198 MW;  355530D032D3A049 CRC64;

```

Query Match 100.0%; Score 882; DB 1; Length 177;  
Best Local Similarity 100.0%;  
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVSKVEQKAFEKNIFNKTHTRDSEIA	60
Db	1	MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVSKVEQKAFEKNIFNKTHTRDSEIA	60
Qy	61	LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLRKNVEKRALLENMEG	120
Db	61	LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLRKNVEKRALLENMEG	120
Qy	121	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	177
Db	121	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	177

RESULT 4  
D4A8T3\_RAT  
ID D4A8T3\_RAT Unreviewed; 177 AA.  
AC D4A8T3;  
DT 20-APR-2010, integrated into UniProtKB/TrEMBL.  
DT 20-APR-2010, sequence version 1.

DT 02-NOV-2010, entry version 7.

DE SubName: Full=Coatomer protein complex, subunit zeta 1 (Predicted);

DE SubName: Full=Uncharacterized protein;

GN Name=Copz1; Synonyms=Copz1\_predicted; ORFNames=rCG\_50578;

OS Rattus norvegicus (Rat).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;

OC Muroidea; Muridae; Murinae; Rattus.

OX NCBI\_TaxID=10116;

RN [1]

RP IDENTIFICATION.

RG Ensembl;

RL Submitted (MAR-2010) to UniProtKB.

RN [2]

RP NUCLEOTIDE SEQUENCE [LARGE SCALE GENOMIC DNA].

RC STRAIN=Brown Norway;

RX PubMed=15057822; DOI=10.1038/nature02426;

RA Gibbs R.A., Weinstock G.M., Metzker M.L., Muzny D.M., Sodergren E.J.,

RA Scherer S., Scott G., Steffen D., Worley K.C., Burch P.E., Okwuonu G.,

RA Hines S., Lewis L., Deramo C., Delgado O., Dugan-Rocha S., Miner G.,

RA Morgan M., Hawes A., Gill R., Holt R.A., Adams M.D., Amanatides P.G.,

RA Baden-Tillson H., Barnstead M., Chin S., Evans C.A., Ferriera S.,

RA Fosler C., Glodek A., Gu Z., Jennings D., Kraft C.L., Nguyen T.,

RA Pfannkoch C.M., Sitter C., Sutton G.G., Venter J.C., Woodage T.,

RA Smith D., Lee H.-M., Gustafson E., Cahill P., Kana A.,

RA Doucette-Stamm L., Weinstock K., Fechtel K., Weiss R.B., Dunn D.M.,

RA Green E.D., Blakesley R.W., Bouffard G.G., De Jong P.J., Osoegawa K.,

RA Zhu B., Marra M., Schein J., Bosdet I., Fjell C., Jones S.,

RA Krzywinski M., Mathewson C., Siddiqui A., Wye N., McPherson J.,

RA Zhao S., Fraser C.M., Shetty J., Shatsman S., Geer K., Chen Y.,

RA Abramzon S., Nierman W.C., Havlak P.H., Chen R., Durbin K.J., Egan A.,

RA Ren Y., Song X.-Z., Li B., Liu Y., Qin X., Cawley S., Cooney A.J.,

RA D'Souza L.M., Martin K., Wu J.Q., Gonzalez-Garay M.L., Jackson A.R.,

RA Kalafus K.J., McLeod M.P., Milosavljevic A., Virk D., Volkov A.,

RA Wheeler D.A., Zhang Z., Bailey J.A., Eichler E.E., Tuzun E.,

RA Birney E., Mongin E., Ureta-Vidal A., Woodwark C., Zdobnov E.,

RA Bork P., Suyama M., Torrents D., Alexandersson M., Trask B.J.,

RA Young J.M., Huang H., Wang H., Xing H., Daniels S., Gietzen D.,

RA Schmidt J., Stevens K., Vitt U., Wingrove J., Camara F., Mar Alba M.,

RA Abril J.F., Guigo R., Smit A., Dubchak I., Rubin E.M., Couronne O.,

RA Poliakov A., Huebner N., Ganten D., Goesele C., Hummel O.,

RA Kreitler T., Lee Y.-A., Monti J., Schulz H., Zimdahl H.,

RA Himmelbauer H., Lehrach H., Jacob H.J., Bromberg S.,

RA Gullings-Handley J., Jensen-Seaman M.I., Kwitek A.E., Lazar J.,

RA Pasko D., Tonellato P.J., Twigger S., Ponting C.P., Duarte J.M.,

RA Rice S., Goodstadt L., Beatson S.A., Emes R.D., Winter E.E.,

RA Webber C., Brandt P., Nyakatura G., Adetobi M., Chiaromonte F.,

RA Elnitski L., Eswara P., Hardison R.C., Hou M., Kolbe D., Makova K.,

RA Miller W., Nekrutenko A., Riemer C., Schwartz S., Taylor J., Yang S.,

RA Zhang Y., Lindpaintner K., Andrews T.D., Caccamo M., Clamp M.,

RA Clarke L., Curwen V., Durbin R.M., Eyraes E., Searle S.M., Cooper G.M.,

RA Batzoglu S., Brudno M., Sidow A., Stone E.A., Payseur B.A.,

RA Bourque G., Lopez-Otin C., Puente X.S., Chakrabarti K., Chatterji S.,

RA Dewey C., Pachter L., Bray N., Yap V.B., Caspi A., Tesler G.,

RA Pevzner P.A., Haussler D., Roskin K.M., Baertsch R., Clawson H.,

RA Furey T.S., Hinrichs A.S., Karolchik D., Kent W.J., Rosenbloom K.R.,

RA Trumbower H., Weirauch M., Cooper D.N., Stenson P.D., Ma B., Brent M.,

RA Arumugam M., Shteynberg D., Copley R.R., Taylor M.S., Riethman H.,

RA Mudunuri U., Peterson J., Guyer M., Felsenfeld A., Old S., Mockrin S.,

RA Collins F.S.;

RT "Genome sequence of the Brown Norway rat yields insights into

RT mammalian evolution.";

RL Nature 428:493-521(2004).

RN [3]

RP NUCLEOTIDE SEQUENCE.

RC STRAIN=BN;

RX PubMed=15632090; DOI=10.1101/gr.2889405;



RA Florea L., Di Francesco V., Miller J., Turner R., Yao A., Harris M.,  
 RA Walenz B., Mobarry C., Merkulov G.V., Charlab R., Dew I., Deng Z.,  
 RA Istrail S., Li P., Sutton G.;  
 RT "Gene and alternative splicing annotation with AIR."  
 RL Genome Res. 15:54-66(2005).  
 RN [4]  
 RP NUCLEOTIDE SEQUENCE.  
 RC STRAIN=BN;  
 RA Mural R.J., Li P.W., Adams M.D., Amanatides P.G., Baden-Tillson H.,  
 RA Barnstead M., Chin S.H., Dew I., Evans C.A., Ferriera S., Flanigan M.,  
 RA Fosler C., Glodek A., Gu Z., Holt R.A., Jennings D., Kraft C.L.,  
 RA Lu F., Nguyen T., Nusskern D.R., Pfannkoch C.M., Sitter C.,  
 RA Sutton G.G., Venter J.C., Wang Z., Woodage T., Zheng X.H., Zhong F.;  
 RL Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.  
 CC -----  
 CC Copyrighted by the UniProt Consortium, see <http://www.uniprot.org/terms>  
 CC Distributed under the Creative Commons Attribution-NoDerivs License  
 CC -----  
 DR EMBL; CH474035; EDL86787.1; -; Genomic\_DNA.  
 DR IPI; IPI00949165; -.  
 DR RefSeq; NP\_001101587.1; -.  
 DR UniGene; Rn.159796; -.  
 DR ProteinModelPortal; D4A8T3; -.  
 DR SMR; D4A8T3; 1-149.  
 DR Ensembl; ENSRN0T00000065270; ENSRNOP00000059082; ENSRNOG00000036835.  
 DR GeneID; 315345; -.  
 DR KEGG; rno:315345; -.  
 DR CTD; 315345; -.  
 DR RGD; 1306154; Copz1.  
 DR GO; GO:0030117; C:membrane coat; IEA:InterPro.  
 DR GO; GO:0005515; F:protein binding; IEA:InterPro.  
 DR GO; GO:0006886; P:intracellular protein transport; IEA:InterPro.  
 DR GO; GO:0016192; P:vesicle-mediated transport; IEA:InterPro.  
 DR InterPro; IPR022775; AP\_mu\_sigma\_su.  
 DR InterPro; IPR000804; Clathrin\_sm-chain\_CS.  
 DR InterPro; IPR011012; Longin-like.  
 DR Pfam; PF01217; Clat\_adaptor\_s; 1.  
 DR SUPFAM; SSF64356; Longin\_like; 1.  
 DR PROSITE; PS00989; CLAT\_ADAPTOR\_S; 1.  
 PE 4: Predicted;  
 SQ SEQUENCE 177 AA; 20198 MW; 355530D032D3A049 CRC64;

Query Match 100.0%; Score 882; DB 2; Length 177;  
 Best Local Similarity 100.0%;  
 Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPSVKEQKAFEKNIFNKTHRTDSEIA	60
Db	1	MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPSVKEQKAFEKNIFNKTHRTDSEIA	60
Qy	61	LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLRKNVEKRALLENMEG	120
Db	61	LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLRKNVEKRALLENMEG	120
Qy	121	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	177
Db	121	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	177

## RESULT 5

Q542M2\_MOUSE

ID Q542M2\_MOUSE Unreviewed; 177 AA.

AC Q542M2;

DT 24-MAY-2005, integrated into UniProtKB/TrEMBL.

DT 24-MAY-2005, sequence version 1.

DT 05-OCT-2010, entry version 50.

DE SubName: Full=Coatomer protein complex, subunit zeta 1, isoform CRA\_c;

DE SubName: Full=Copz1 protein;  
 DE SubName: Full=Putative uncharacterized protein;  
 GN Name=Copz1; ORFNames=mCG\_15682;  
 OS Mus musculus (Mouse).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;  
 OC Muroidea; Muridae; Murinae; Mus; Mus.  
 OX NCBI\_TaxID=10090;  
 RN [1]  
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].  
 RC STRAIN=C57BL/6J, and NOD; TISSUE=Spinal ganglion, Amnion, Placenta,  
 RC and Activated spleen;  
 RX PubMed=16141072; DOI=10.1126/science.1112014;  
 RA Carninci P., Kasukawa T., Katayama S., Gough J., Frith M.C., Maeda N.,  
 RA Oyama R., Ravasi T., Lenhard B., Wells C., Kodzius R., Shimokawa K.,  
 RA Bajic V.B., Brenner S.E., Batalov S., Forrest A.R., Zavolan M.,  
 RA Davis M.J., Wilming L.G., Aidinis V., Allen J.E.,  
 RA Ambesi-Impombato A., Apweiler R., Aturaliya R.N., Bailey T.L.,  
 RA Bansal M., Baxter L., Beisel K.W., Bersano T., Bono H., Chalk A.M.,  
 RA Chiu K.P., Choudhary V., Christoffels A., Clutterbuck D.R.,  
 RA Crowe M.L., Dalla E., Dalrymple B.P., de Bono B., Della Gatta G.,  
 RA di Bernardo D., Down T., Engstrom P., Fagioloni M., Faulkner G.,  
 RA Fletcher C.F., Fukushima T., Furuno M., Futaki S., Gariboldi M.,  
 RA Georgii-Hemming P., Gingeras T.R., Gojobori T., Green R.E.,  
 RA Gustincich S., Harbers M., Hayashi Y., Hensch T.K., Hirokawa N.,  
 RA Hill D., Huminiecki L., Iacono M., Ikeo K., Iwama A., Ishikawa T.,  
 RA Jakt M., Kanapin A., Katoh M., Kawasaki Y., Kelso J., Kitamura H.,  
 RA Kitano H., Kollias G., Krishnan S.P., Kruger A., Kummerfeld S.K.,  
 RA Kurochkin I.V., Lareau L.F., Lazarevic D., Lipovich L., Liu J.,  
 RA Liuni S., McWilliam S., Madan Babu M., Madera M., Marchionni L.,  
 RA Matsuda H., Matsuzawa S., Miki H., Mignone F., Miyake S., Morris K.,  
 RA Mottagui-Tabar S., Mulder N., Nakano N., Nakauchi H., Ng P.,  
 RA Nilsson R., Nishiguchi S., Nishikawa S., Nori F., Ohara O.,  
 RA Okazaki Y., Orlando V., Pang K.C., Pavan W.J., Pavesi G., Pesole G.,  
 RA Petrovsky N., Piazza S., Reed J., Reid J.F., Ring B.Z., Ringwald M.,  
 RA Rost B., Ruan Y., Salzberg S.L., Sandelin A., Schneider C.,  
 RA Schoenbach C., Sekiguchi K., Semple C.A., Seno S., Sessa L., Sheng Y.,  
 RA Shibata Y., Shimada H., Shimada K., Silva D., Sinclair B.,  
 RA Sperling S., Stupka E., Sugiura K., Sultana R., Takenaka Y., Taki K.,  
 RA Tammoja K., Tan S.L., Tang S., Taylor M.S., Tegner J., Teichmann S.A.,  
 RA Ueda H.R., van Nimwegen E., Verardo R., Wei C.L., Yagi K.,  
 RA Yamanishi H., Zabarovsky E., Zhu S., Zimmer A., Hide W., Bult C.,  
 RA Grimmond S.M., Teasdale R.D., Liu E.T., Brusic V., Quackenbush J.,  
 RA Wahlestedt C., Mattick J.S., Hume D.A., Kai C., Sasaki D., Tomaru Y.,  
 RA Fukuda S., Kanamori-Katayama M., Suzuki M., Aoki J., Arakawa T.,  
 RA Iida J., Imamura K., Itoh M., Kato T., Kawaji H., Kawagashira N.,  
 RA Kawashima T., Kojima M., Kondo S., Konno H., Nakano K., Ninomiya N.,  
 RA Nishio T., Okada M., Plessy C., Shibata K., Shiraki T., Suzuki S.,  
 RA Tagami M., Waki K., Watahiki A., Okamura-Oho Y., Suzuki H., Kawai J.,  
 RA Hayashizaki Y.;  
 RT "The transcriptional landscape of the mammalian genome.";  
 RL Science 309:1559-1563(2005).  
 RN [2]  
 RP NUCLEOTIDE SEQUENCE.  
 RC STRAIN=Mixed;  
 RX MEDLINE=22036378; PubMed=12040188; DOI=10.1126/science.1069193;  
 RA Mural R.J., Adams M.D., Myers E.W., Smith H.O., Miklos G.L., Wides R.,  
 RA Halpern A., Li P.W., Sutton G.G., Nadeau J., Salzberg S.L., Holt R.A.,  
 RA Kodira C.D., Lu F., Chen L., Deng Z., Evangelista C.C., Gan W.,  
 RA Heiman T.J., Li J., Li Z., Merkulov G.V., Milshina N.V., Naik A.K.,  
 RA Qi R., Shue B.C., Wang A., Wang J., Wang X., Yan X., Ye J.,  
 RA Yoosheph S., Zhao Q., Zheng L., Zhu S.C., Biddick K., Bolanos R.,  
 RA Delcher A.L., Dew I.M., Fasulo D., Flanigan M.J., Huson D.H.,  
 RA Kravitz S.A., Miller J.R., Mobarry C.M., Reinert K., Remington K.A.,  
 RA Zhang Q., Zheng X.H., Nusskern D.R., Lai Z., Lei Y., Zhong W., Yao A.,  
 RA Guan P., Ji R.R., Gu Z., Wang Z.Y., Zhong F., Xiao C., Chiang C.C.,  
 RA Yandell M., Wortman J.R., Amanatides P.G., Hladun S.L., Pratts E.C.,

RA Johnson J.E., Dodson K.L., Woodford K.J., Evans C.A., Gropman B.,  
 RA Rusch D.B., Venter E., Wang M., Smith T.J., Houck J.T., Tompkins D.E.,  
 RA Haynes C., Jacob D., Chin S.H., Allen D.R., Dahlke C.E., Sanders R.,  
 RA Li K., Liu X., Levitsky A.A., Majoros W.H., Chen Q., Xia A.C.,  
 RA Lopez J.R., Donnelly M.T., Newman M.H., Glodek A., Kraft C.L.,  
 RA Nodell M., Ali F., An H.J., Baldwin-Pitts D., Beeson K.Y., Cai S.,  
 RA Carnes M., Carver A., Caulk P.M., Center A., Chen Y.H., Cheng M.L.,  
 RA Coyne M.D., Crowder M., Danaher S., Davenport L.B., Desilets R.,  
 RA Dietz S.M., Doup L., Dullaghan P., Ferriera S., Fosler C.R.,  
 RA Gire H.C., Gluecksmann A., Gocayne J.D., Gray J., Hart B., Haynes J.,  
 RA Hoover J., Howland T., Ibegwam C., Jalali M., Johns D., Kline L.,  
 RA Ma D.S., MacCawley S., Magoon A., Mann F., May D., McIntosh T.C.,  
 RA Mehta S., Moy L., Moy M.C., Murphy B.J., Murphy S.D., Nelson K.A.,  
 RA Nuri Z., Parker K.A., Prudhomme A.C., Puri V.N., Qureshi H.,  
 RA Raley J.C., Reardon M.S., Regier M.A., Rogers Y.H., Romblad D.L.,  
 RA Schutz J., Scott J.L., Scott R., Sitter C.D., Smallwood M.,  
 RA Sprague A.C., Stewart E., Strong R.V., Suh E., Sylvester K.,  
 RA Thomas R., Tint N.N., Tsonis C., Wang G., Wang G., Williams M.S.,  
 RA Williams S.M., Windsor S.M., Wolfe K., Wu M.M., Zaveri J.,  
 RA Chaturvedi K., Gabrielian A.E., Ke Z., Sun J., Subramanian G.,  
 RA Venter J.C., Pfannkoch C.M., Barnstead M., Stephenson L.D.;  
 RT "A comparison of whole-genome shotgun-derived mouse chromosome 16 and  
 RT the human genome.";  
 RL Science 296:1661-1671(2002).  
 RN [3]  
 RP NUCLEOTIDE SEQUENCE.  
 RC STRAIN=Mixed;  
 RA Mural R.J., Adams M.D., Myers E.W., Smith H.O., Venter J.C.;  
 RL Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.  
 RN [4]  
 RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].  
 RC STRAIN=Czech II; TISSUE=Mammary tumor metastatized to lung. Tumor  
 RC arose spontaneously;  
 RX PubMed=15489334; DOI=10.1101/gr.2596504;  
 RG The MGC Project Team;  
 RT "The status, quality, and expansion of the NIH full-length cDNA  
 RT project: the Mammalian Gene Collection (MGC).";  
 RL Genome Res. 14:2121-2127(2004).  
 CC -----  
 CC Copyrighted by the UniProt Consortium, see <http://www.uniprot.org/terms>  
 CC Distributed under the Creative Commons Attribution-NoDerivs License  
 CC -----  
 DR EMBL; BC110679; AAI10680.1; -; mRNA.  
 DR EMBL; AK083824; BAC39030.1; -; mRNA.  
 DR EMBL; AK156758; BAE33841.1; -; mRNA.  
 DR EMBL; AK167636; BAE39687.1; -; mRNA.  
 DR EMBL; AK168382; BAE40310.1; -; mRNA.  
 DR EMBL; AK168471; BAE40362.1; -; mRNA.  
 DR EMBL; CH466550; EDL03927.1; -; Genomic\_DNA.  
 DR IPI; IPI00139637; -.  
 DR RefSeq; NP\_062791.1; -.  
 DR UniGene; Mm.29473; -.  
 DR ProteinModelPortal; Q542M2; -.  
 DR SMR; Q542M2; 1-149.  
 DR STRING; Q542M2; -.  
 DR PRIDE; Q542M2; -.  
 DR Ensembl; ENSMUST00000100162; ENSMUSP00000097738; ENSMUSG00000060992.  
 DR GeneID; 56447; -.  
 DR KEGG; mmu:56447; -.  
 DR CTD; 56447; -.  
 DR MGI; MGI:1929063; Copz1.  
 DR HOVERGEN; HBG051077; -.  
 DR InParanoid; Q542M2; -.  
 DR OMA; YDDTYPT; -.  
 DR PhylomeDB; Q542M2; -.  
 DR NextBio; 312654; -.  
 DR ArrayExpress; Q542M2; -.

DR Bgee; Q542M2; -.  
DR Genevestigator; Q542M2; -.  
DR GO; GO:0030117; C:membrane coat; IEA:InterPro.  
DR GO; GO:0005515; F:protein binding; IEA:InterPro.  
DR GO; GO:0006886; P:intracellular protein transport; IEA:InterPro.  
DR InterPro; IPR022775; AP\_mu\_sigma\_su.  
DR InterPro; IPR000804; Clathrin\_sm-chain\_CS.  
DR InterPro; IPR011012; Longin-like.  
DR Pfam; PF01217; Clat\_adaptor\_s; 1.  
DR SUPFAM; SSF64356; Longin\_like; 1.  
DR PROSITE; PS00989; CLAT\_ADAPTOR\_S; 1.  
PE 2: Evidence at transcript level;  
SQ SEQUENCE 177 AA; 20198 MW; 355530D032D3A049 CRC64;

Query Match 100.0%; Score 882; DB 2; Length 177;  
Best Local Similarity 100.0%;  
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHTDSEIA 60  
|  
Db 1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHTDSEIA 60  
  
Qy 61 LLEGLTVVYKSSIDLIFYFVIGSSYENELMLMAVLNCLFDSLSQLRKNVEKRALLENMEG 120  
|  
Db 61 LLEGLTVVYKSSIDLIFYFVIGSSYENELMLMAVLNCLFDSLSQLRKNVEKRALLENMEG 120  
  
Qy 121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177  
|  
Db 121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177

## RESULT 6

## COPZ1\_BOVIN

ID COPZ1\_BOVIN Reviewed; 177 AA.  
AC P35604; Q5EA44;  
DT 01-JUN-1994, integrated into UniProtKB/Swiss-Prot.  
DT 27-JUN-2006, sequence version 2.  
DT 05-OCT-2010, entry version 74.  
DE RecName: Full=Coatomer subunit zeta-1;  
DE AltName: Full=Zeta-1-coat protein;  
DE Short=Zeta-1 COP;  
GN Name=COPZ1; Synonyms=COPZ;  
OS Bos taurus (Bovine).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;  
OC Pecora; Bovidae; Bovinae; Bos.  
OX NCBI\_TaxID=9913;  
RN [1]  
RP NUCLEOTIDE SEQUENCE [MRNA], AND PROTEIN SEQUENCE OF 55-70; 113-129 AND  
RP 146-160.  
RC TISSUE=Liver;  
RX MEDLINE=94103328; PubMed=8276893; DOI=10.1083/jcb.123.6.1727;  
RA Kuge O., Hara-Kuge S., Orci L., Ravazzola M., Amherdt M., Tanigawa G.,  
RA Wieland F.T., Rothman J.E.;  
RT "Zeta-COP, a subunit of coatomer, is required for COP-coated vesicle  
RT assembly.";  
RL J. Cell Biol. 123:1727-1734(1993).  
RN [2]  
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].  
RX PubMed=16305752; DOI=10.1186/1471-2164-6-166;  
RA Harhay G.P., Sonstegard T.S., Keele J.W., Heaton M.P., Clawson M.L.,  
RA Snelling W.M., Wiedmann R.T., Van Tassell C.P., Smith T.P.L.;  
RT "Characterization of 954 bovine full-CDS cDNA sequences.";  
RL BMC Genomics 6:166-166(2005).  
RN [3]  
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].  
RC STRAIN=Crossbred X Angus; TISSUE=Ileum;

RG NIH - Mammalian Gene Collection (MGC) project;  
 RL Submitted (AUG-2005) to the EMBL/GenBank/DDBJ databases.

CC -!- FUNCTION: The coatomer is a cytosolic protein complex that binds  
 CC to dilysine motifs and reversibly associates with Golgi non-  
 CC clathrin-coated vesicles, which further mediate biosynthetic  
 CC protein transport from the ER, via the Golgi up to the trans Golgi  
 CC network. Coatomer complex is required for budding from Golgi  
 CC membranes, and is essential for the retrograde Golgi-to-ER  
 CC transport of dilysine-tagged proteins. In mammals, the coatomer  
 CC can only be recruited by membranes associated to ADP-ribosylation  
 CC factors (ARFs), which are small GTP-binding proteins; the complex  
 CC also influences the Golgi structural integrity, as well as the  
 CC processing, activity, and endocytic recycling of LDL receptors (By  
 CC similarity).

CC -!- FUNCTION: The zeta subunit may be involved in regulating the coat  
 CC assembly and, hence, the rate of biosynthetic protein transport  
 CC due to its association-dissociation properties with the coatomer  
 CC complex.

CC -!- SUBUNIT: Oligomeric complex that consists of at least the alpha,  
 CC beta, beta', gamma, delta, epsilon and zeta subunits.

CC -!- SUBCELLULAR LOCATION: Cytoplasm (By similarity). Golgi apparatus  
 CC membrane; Peripheral membrane protein; Cytoplasmic side (By  
 CC similarity). Cytoplasmic vesicle, COPI-coated vesicle membrane;  
 CC Peripheral membrane protein; Cytoplasmic side (By similarity).  
 CC Note=The coatomer is cytoplasmic or polymerized on the cytoplasmic  
 CC side of the Golgi, as well as on the vesicles/buds originating  
 CC from it (By similarity).

CC -!- PTM: Phosphorylated upon DNA damage, probably by ATM or ATR (By  
 CC similarity).

CC -!- SIMILARITY: Belongs to the adaptor complexes small subunit family.

CC -----

CC Copyrighted by the UniProt Consortium, see <http://www.uniprot.org/terms>  
 CC Distributed under the Creative Commons Attribution-NoDerivs License  
 CC -----

DR EMBL; X75935; CAA53539.1; -; mRNA.  
 DR EMBL; BT020662; AAX08679.1; -; mRNA.  
 DR EMBL; BT020725; AAX08742.1; -; mRNA.  
 DR EMBL; BC102358; AAI02359.1; -; mRNA.  
 DR IPI; IPI00685319; -.  
 DR PIR; A49465; A49465.  
 DR RefSeq; NP\_776707.2; -.  
 DR UniGene; Bt.43744; -.  
 DR ProteinModelPortal; P35604; -.  
 DR SMR; P35604; 1-149.  
 DR IntAct; P35604; 2.  
 DR STRING; P35604; -.  
 DR Ensembl; ENSBTAT00000007088; ENSBTAP00000007088; ENSBTAG00000005384.  
 DR GeneID; 281707; -.  
 DR KEGG; bta:281707; -.  
 DR CTD; 281707; -.  
 DR eggNOG; maNOG17869; -.  
 DR HOVERGEN; HBG051077; -.  
 DR InParanoid; P35604; -.  
 DR OMA; YDDTYPT; -.  
 DR OrthoDB; EOG969TD6; -.  
 DR PhylomeDB; P35604; -.  
 DR BioCyc; CATTLE:281707-MONOMER; -.  
 DR GO; GO:0030126; C:COPI vesicle coat; IDA:UniProtKB.  
 DR GO; GO:0005515; F:protein binding; IEA:InterPro.  
 DR GO; GO:0006891; P:intra-Golgi vesicle-mediated transport; IDA:UniProtKB.  
 DR GO; GO:0006886; P:intracellular protein transport; IEA:InterPro.  
 DR GO; GO:0006890; P:retrograde vesicle-mediated transport, Golg. . .; TAS:UniProtKB.  
 DR InterPro; IPR022775; AP\_mu\_sigma\_su.  
 DR InterPro; IPR000804; Clathrin\_sm-chain\_CS.  
 DR InterPro; IPR011012; Longin-like.  
 DR Pfam; PF01217; Clat\_adaptor\_s; 1.  
 DR SUPFAM; SSF64356; Longin\_like; 1.

```

DR      PROSITE; PS00989; CLAT_ADAPTOR_S; 1.
PE      1: Evidence at protein level;
KW      Acetylation; Cytoplasm; Cytoplasmic vesicle;
KW      Direct protein sequencing; ER-Golgi transport; Golgi apparatus;
KW      Membrane; Phosphoprotein; Protein transport; Transport.
FT      CHAIN           1       177       Coatomer subunit zeta-1.
FT                                     /FTId=PRO_0000193824.
FT      MOD_RES          1         1       N-acetylmethionine (By similarity).
FT      MOD_RES        161       161       Phosphoserine (By similarity).
FT      CONFLICT         7         7       E -> Q (in Ref. 1; CAA53539).
SQ      SEQUENCE      177 AA;  20228 MW;  D410249532C8BAF8 CRC64;

Query Match          99.5%;  Score 878;  DB 1;  Length 177;
Best Local Similarity 99.4%;
Matches 176;  Conservative 0;  Mismatches 1;  Indels 0;  Gaps 0;

```

Qy	1	MEALILEPSLYTVKAILILDNDGDRLF	AKYYDDTYP	SVKEQKAF	KNIFNK	THRTDSEIA	60
Db	1	MEALILEPSLYTVKAILILDNDGDRLF	AKYYDDTYP	SVKEQKAF	KNIFNK	THRTDSEIA	60
Qy	61	LLEGLTVVYKSSIDLYFYVIGSSY	ENELMLMAV	LNCLFDS	LSQMLRKN	VEKRALLENMEG	120
Db	61	LLEGLTVVYKSSIDLYFYVIGSSY	ENELMLMTV	LNCLFDS	LSQMLRKN	VEKRALLENMEG	120
Qy	121	LFLAVDEIVDGGVILESDPQQV	VHRVALRG	EDVPLTE	QTVSQVL	QSAKEQIKWSLLR	177
Db	121	LFLAVDEIVDGGVILESDPQQV	VHRVALRG	EDVPLTE	QTVSQVL	QSAKEQIKWSLLR	177

## RESULT 7

```

Q53FU3_HUMAN
ID   Q53FU3_HUMAN                      Unreviewed;          177 AA.
AC   Q53FU3;
DT   24-MAY-2005, integrated into UniProtKB/TrEMBL.
DT   24-MAY-2005, sequence version 1.
DT   05-OCT-2010, entry version 31.
DE   SubName: Full=Coatomer protein complex, subunit zeta 1 variant;
DE   Flags: Fragment;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Haplorrhini;
OC   Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Renal proximal tubule;
RX   MEDLINE=94171032; PubMed=8125298; DOI=10.1016/0378-1119(94)90802-8;
RA   Maruyama K., Sugano S.;
RT   "Oligo-capping: a simple method to replace the cap structure of
RT   eukaryotic mRNAs with oligoribonucleotides.";
RL   Gene 138:171-174(1994).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Renal proximal tubule;
RX   MEDLINE=98038986; PubMed=9373149; DOI=10.1016/S0378-1119(97)00411-3;
RA   Suzuki Y., Yoshitomo K., Maruyama K., Suyama A., Sugano S.;
RT   "Construction and characterization of a full length-enriched and a 5'-
RT   end-enriched cDNA library.";
RL   Gene 200:149-156(1997).
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Renal proximal tubule;
RA   Suzuki Y., Sugano S., Totoki Y., Toyoda A., Takeda T., Sakaki Y.,
RA   Tanaka A., Yokoyama S.;
RL   Submitted (APR-2005) to the EMBL/GenBank/DDBJ databases.
CC   -----
CC   Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms

```

```
CC      Distributed under the Creative Commons Attribution-NoDerivs License
CC      -----
DR      EMBL; AK223188; BAD96908.1; -; mRNA.
DR      IPI; IPI00032851; -.
DR      UniGene; Hs.505652; -.
DR      STRING; Q53FU3; -.
DR      Ensembl; ENST00000262061; ENSP00000262061; ENSG00000111481.
DR      HGNC; HGNC:2243; COPZ1.
DR      HOVERGEN; HBG051077; -.
DR      ArrayExpress; Q53FU3; -.
DR      Bgee; Q53FU3; -.
DR      GO; GO:0030117; C:membrane coat; IEA:InterPro.
DR      GO; GO:0005515; F:protein binding; IEA:InterPro.
DR      GO; GO:0006886; P:intracellular protein transport; IEA:InterPro.
DR      GO; GO:0016192; P:vesicle-mediated transport; IEA:InterPro.
DR      InterPro; IPR022775; AP_mu_sigma_su.
DR      InterPro; IPR000804; Clathrin_sm-chain_CS.
DR      InterPro; IPR011012; Longin-like.
DR      Pfam; PF01217; Clat_adaptor_s; 1.
DR      SUPFAM; SSF64356; Longin_like; 1.
DR      PROSITE; PS00989; CLAT_ADAPTOR_S; 1.
PE      2: Evidence at transcript level;
FT      NON_TER      1      1
SQ      SEQUENCE      177 AA;  20267 MW;  5E2530D17696A10D CRC64;
```

Query Match 99.4%; Score 877; DB 2; Length 177;  
Best Local Similarity 99.4%;  
Matches 176; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy	1	MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFKKNIFNKTHTDSEIA	60
Db	1	MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFKKNIFNKTHTDSEIA	60
Qy	61	LLEGLTVVYKSSIDLIFYFVIGSSYENELMLMAVLNCLFDSLQMLRKNVEKRALLENMEG	120
Db	61	LLEGLTVVYKSSIDLIFYFVIGSSYENELMLMAVLNCLFDSLQMLRKNVEKRALLENMEG	120
Qy	121	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	177
Db	121	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSOVLOSACEQIKWSLLR	177

## RESULT 8

```

Q28HL1_XENTR
ID   Q28HL1_XENTR                      Unreviewed;          177 AA.
AC   Q28HL1;
DT   04-APR-2006, integrated into UniProtKB/TrEMBL.
DT   04-APR-2006, sequence version 1.
DT   05-OCT-2010, entry version 22.
DE   SubName: Full=OTTXETP00000008162;
GN   Name=copz1; ORFNames=TTpA002p21.1-001;
OS   Xenopus tropicalis (Western clawed frog) (Silurana tropicalis).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidae; Pipidae;
OC   Xenopodinae; Xenopus; Silurana.
OX   NCBI_TaxID=8364;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Amaya E., Ashurst J.L., Bonfield J.K., Croning M.D.R., Chen C-K.,
RA   Davies R.M., Francis M.D., Garrett N., Gilchrist M.J., Grafham D.V.,
RA   McLaren S.R., Papalopulu N., Rogers J., Smith J.C., Taylor R.G.,
RA   Voigt J., Zorn A.M.;
RL   Submitted (OCT-2006) to the EMBL/GenBank/DDBJ databases.
CC   -----
CC   Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms
CC   Distributed under the Creative Commons Attribution-NoDerivs License
CC   -----

```

DR EMBL; CR760836; CAJ83159.1; -; mRNA.  
DR UniGene; Str.5365; -.  
DR ProteinModelPortal; Q28HL1; -.  
DR SMR; Q28HL1; 1-149.  
DR STRING; Q28HL1; -.  
DR HOVERGEN; HBG051077; -.  
DR GO; GO:0030117; C:membrane coat; IEA:InterPro.  
DR GO; GO:0005515; F:protein binding; IEA:InterPro.  
DR GO; GO:0006886; P:intracellular protein transport; IEA:InterPro.  
DR GO; GO:0016192; P:vesicle-mediated transport; IEA:InterPro.  
DR InterPro; IPR022775; AP\_mu\_sigma\_su.  
DR InterPro; IPR000804; Clathrin\_sm-chain\_CS.  
DR InterPro; IPR011012; Longin-like.  
DR Pfam; PF01217; Clat\_adaptor\_s; 1.  
DR SUPFAM; SSF64356; Longin\_like; 1.  
DR PROSITE; PS00989; CLAT\_ADAPTOR\_S; 1.  
PE 2: Evidence at transcript level;  
SQ SEQUENCE 177 AA; 20202 MW; 4739F11DFDBBD25E CRC64;

Query Match 96.0%; Score 847; DB 2; Length 177;  
Best Local Similarity 93.2%;  
Matches 165; Conservative 11; Mismatches 1; Indels 0; Gaps 0;

Qy	1	MEALILEPSLYTVKAILILDNDGDRLF	AKYYDDTYP	SVKEQKAF	EKNIFNKT	HR	TDSEIA	60
		: :: :     :     :     : : :						
Db	1	MDAILLDPSLYTVKAVLILDNDGERLF	AKYYDETYPT	VEQKAF	EKNIFNKT	HR	TDSEIA	60
Qy	61	LLEGLTVVYKSSIDL	YFYVIGSSY	ENELMLMAV	LNCLFDSL	SQMLRKN	VEKR	ALLENMEG 120
			:					
Db	61	LLEGLTVVYKSSIDL	YFYVIGSSHEN	ELMLMAV	LNCLFDSL	SQMLRKN	VEKRTLLENMEG 120	
Qy	121	LFLAVDEIVDGGVILESDP	QQVVHRVALR	GEDVPLTEQ	TVSQVLQSAKE	QIKWSLLR	177	
		:	:					
Db	121	LFLAVDEIIDGGVILESDP	QQVVHRVALRGDD	VPLTEQ	TVSQVLQSAKE	QIKWSLLR	177	

## RESULT 9

A0AUT9\_XENLA

```

ID      A0AUT9_XENLA          Unreviewed;          177 AA.
AC      A0AUT9;
DT      28-NOV-2006, integrated into UniProtKB/TrEMBL.
DT      28-NOV-2006, sequence version 1.
DT      05-OCT-2010, entry version 17.
DE      SubName: Full=Copz1 protein;
GN      Name=Copz1;
OS      Xenopus laevis (African clawed frog).
OC      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC      Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidae; Pipidae;
OC      Xenopodinae; Xenopus; Xenopus.
OX      NCBI_TaxID=8355;
RN      [1]
RP      NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RC      TISSUE=Embryo;
RG      NIH - Xenopus Gene Collection (XGC) project;
RL      Submitted (OCT-2006) to the EMBL/GenBank/DBJ databases.
CC      -----
CC      Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms
CC      Distributed under the Creative Commons Attribution-NoDerivs License
CC      -----
DR      EMBL; BC124924; AAI24925.1; -; mRNA.
DR      UniGene; Xl.76078; -.
DR      ProteinModelPortal; A0AUT9; -.
DR      SMR; A0AUT9; 1-149.
DR      HOVERGEN; HBG051077; -.
DR      GO; GO:0030117; C:membrane coat; IEA:InterPro.
DR      GO; GO:0005515; F:protein binding; IEA:InterPro.
DR      GO; GO:0006886; P:intracellular protein transport; IEA:InterPro.

```



DR GO; GO:0016192; P:vesicle-mediated transport; IEA:InterPro.  
DR InterPro; IPR022775; AP\_mu\_sigma\_su.  
DR InterPro; IPR000804; Clathrin\_sm-chain\_CS.  
DR InterPro; IPR011012; Longin-like.  
DR Pfam; PF01217; Clat\_adaptor\_s; 1.  
DR SUPFAM; SSF64356; Longin\_like; 1.  
DR PROSITE; PS00989; CLAT\_ADAPTOR\_S; 1.  
PE 2: Evidence at transcript level;  
SQ SEQUENCE 177 AA; 20188 MW; 529B50DAF6D85058 CRC64;

Query Match 95.9%; Score 846; DB 2; Length 177;  
Best Local Similarity 93.2%;  
Matches 165; Conservative 11; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60  
|:|::|:|:|||||:|||||:|||||:|:|:|||||  
Db 1 MDAVLLDPSLYTVKAVLILDNGERLFAKYYDETYPTVKEQKAFEKNIFNKTHRTDSEIA 60  
  
Qy 61 LLEGLTVVYKSSIDLIFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120  
|||||:|||||  
Db 61 LLEGLTVVYKSSIDLIFYVIGSSHENELMLMAVLNCLFDSLSQLMRKNVEKRTLLENMEG 120  
  
Qy 121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177  
|||||:|||||:|||||:|||||  
Db 121 LFLAVDEIIDGGVILESDPQQVVHRVALRGDDVPLTEQTVSQVLQSAKEQIKWSLLR 177

## RESULT 10

## Q801P3\_XENLA

ID Q801P3\_XENLA Unreviewed; 187 AA.  
AC Q801P3;  
DT 01-JUN-2003, integrated into UniProtKB/TrEMBL.  
DT 01-JUN-2003, sequence version 1.  
DT 05-OCT-2010, entry version 29.  
DE SubName: Full=Copz1 protein;  
DE Flags: Fragment;  
GN Name=Copz1;  
OS Xenopus laevis (African clawed frog).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipioidea; Pipidae;  
OC Xenopodinae; Xenopus; Xenopus.  
OX NCBI\_TaxID=8355;  
RN [1]  
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].  
RC TISSUE=Embryo;  
RG NIH - Xenopus Gene Collection (XGC) project;  
RL Submitted (MAR-2003) to the EMBL/GenBank/DDBJ databases.  
CC -----  
CC Copyrighted by the UniProt Consortium, see <http://www.uniprot.org/terms>  
CC Distributed under the Creative Commons Attribution-NoDerivs License  
CC -----  
DR EMBL; BC047988; AAH47988.1; -; mRNA.  
DR UniGene; Xl.76078; -.  
DR ProteinModelPortal; Q801P3; -.  
DR HOVERGEN; HBG051077; -.  
DR GO; GO:0030117; C:membrane coat; IEA:InterPro.  
DR GO; GO:0005515; F:protein binding; IEA:InterPro.  
DR GO; GO:0006886; P:intracellular protein transport; IEA:InterPro.  
DR GO; GO:0016192; P:vesicle-mediated transport; IEA:InterPro.  
DR InterPro; IPR022775; AP\_mu\_sigma\_su.  
DR InterPro; IPR000804; Clathrin\_sm-chain\_CS.  
DR InterPro; IPR011012; Longin-like.  
DR Pfam; PF01217; Clat\_adaptor\_s; 1.  
DR SUPFAM; SSF64356; Longin\_like; 1.  
DR PROSITE; PS00989; CLAT\_ADAPTOR\_S; 1.  
PE 2: Evidence at transcript level;  
FT NON\_TER 1 1

SQ SEQUENCE 187 AA; 21167 MW; 7BC34FFA40CA56E4 CRC64;

Query Match 95.9%; Score 846; DB 2; Length 187;  
Best Local Similarity 93.2%;  
Matches 165; Conservative 11; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MEALILEPSLYTVKAILILDNDGDRLEFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60  
|:|::|:|||||||:|||||||:|||||||:|:|:|||||||  
Db 11 MDAVLLDPSLYTVKAVLILDNDGERLFAKYYDETYPTVKEQKAFEKNIFNKTHRTDSEIA 70

Qy 61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120  
|||||||:|||||||:|||||||:|||||||:|||||||:|||||||  
Db 71 LLEGLTVVYKSSIDLYFYVIGSSHENELMLMAVLNCLFDSLSQLMRKNVEKRTLLENMEG 130

Qy 121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177  
|||||||:|||||||:|||||||:|||||||:|||||||  
Db 131 LFLAVDEIIDGGVILESDPQQVVHRVALRGDDVPLTEQTVSQVLQSAKEQIKWSLLR 187

## RESULT 11

## Q9IB48\_DANRE

ID Q9IB48\_DANRE Unreviewed; 177 AA.  
AC Q9IB48;  
DT 01-OCT-2000, integrated into UniProtKB/TrEMBL.  
DT 01-OCT-2000, sequence version 1.  
DT 05-OCT-2010, entry version 48.  
DE SubName: Full=Nonclathrin coat protein zeta1-COP;  
GN Name=copz1;  
OS Danio rerio (Zebrafish) (Brachydanio rerio).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;  
OC Cyprinidae; Danio.  
OX NCBI\_TaxID=7955;  
RN [1]  
RP NUCLEOTIDE SEQUENCE.  
RA Hahn Y., Chung J.H.;  
RT "Identification of zeta-COP genes from various organisms.";  
RL Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.  
CC -----  
CC Copyrighted by the UniProt Consortium, see <http://www.uniprot.org/terms>  
CC Distributed under the Creative Commons Attribution-NoDerivs License  
CC -----  
DR EMBL; AB040044; BAA92783.1; -; mRNA.  
DR IPI; IPI00489034; -.  
DR RefSeq; NP\_571583.1; -.  
DR UniGene; Dr.79072; -.  
DR ProteinModelPortal; Q9IB48; -.  
DR SMR; Q9IB48; 1-149.  
DR STRING; Q9IB48; -.  
DR Ensembl; ENSDART00000011201; ENSDARP00000015008; ENSDARG00000017844.  
DR GeneID; 57970; -.  
DR KEGG; dre:57970; -.  
DR NMPDR; fig|7955.3.peg.20733; -.  
DR CTD; 57970; -.  
DR ZFIN; ZDB-GENE-000406-6; copz1.  
DR HOVERGEN; HBG051077; -.  
DR InParanoid; Q9IB48; -.  
DR OMA; YDDTYPT; -.  
DR OrthoDB; EOG969TD6; -.  
DR PhylomeDB; Q9IB48; -.  
DR ArrayExpress; Q9IB48; -.  
DR Bgee; Q9IB48; -.  
DR GO; GO:0030117; C:membrane coat; IEA:InterPro.  
DR GO; GO:0005515; F:protein binding; IEA:InterPro.  
DR GO; GO:0006886; P:intracellular protein transport; IEA:InterPro.  
DR GO; GO:0002088; P:lens development in camera-type eye; IMP:ZFIN.  
DR GO; GO:0016192; P:vesicle-mediated transport; IEA:InterPro.

DR InterPro; IPR022775; AP\_mu\_sigma\_su.  
DR InterPro; IPR000804; Clathrin\_sm-chain\_CS.  
DR InterPro; IPR011012; Longin-like.  
DR Pfam; PF01217; Clat\_adaptor\_s; 1.  
DR SUPFAM; SSF64356; Longin\_like; 1.  
DR PROSITE; PS00989; CLAT\_ADAPTOR\_S; 1.  
PE 2: Evidence at transcript level;  
SQ SEQUENCE 177 AA; 20279 MW; EC44BED1889FEA07 CRC64;

Query Match 95.8%; Score 845; DB 2; Length 177;  
Best Local Similarity 93.2%;  
Matches 165; Conservative 11; Mismatches 1; Indels 0; Gaps 0;

Qy	1	MEALILEPSLYTVKAILILDNDGDRLF	AKYYDDTYP	SVKEQKAF	EKNIFNKT	HR	TDSEIA	60
		:		:  :	:	:		
Db	1	MDTLILEPSLYTVKAVLIMDNDGERLY	AKYYDDTYP	TVKEQKAF	EKNIFNKT	HR	TDSEIA	60
Qy	61	LLEGLTVVYKSSIDLYFYVIGSSY	ENELMLMAV	LNCLFDS	LSQMLRKN	VEKRAL	LENMEG	120
			:	:	:	:		
Db	61	LLEGLTVVYKSNIDLYFYVIGSS	SHENELMLMSV	LNCLFDS	LSQMLRKN	VEKRAL	LENMEG	120
Qy	121	LFLAVDEIVDGGVILESDPQQV	VHRVALRG	EDVPLTE	QTVSQVL	QSAKEQ	IKWSLLR	177
			:	:	:	:		
Db	121	LFLAVDEIVDGGVILESDPQQV	VHRVALRGDD	VPLTEQ	TVTQVL	QSAKEQ	IKWSLLR	177

RESULT 12

```

Q6GQG0_XENLA
ID   Q6GQG0_XENLA                      Unreviewed;          177 AA.
AC   Q6GQG0;
DT   19-JUL-2004, integrated into UniProtKB/TrEMBL.
DT   19-JUL-2004, sequence version 1.
DT   05-OCT-2010, entry version 33.
DE   SubName: Full=MGC80093 protein;
GN   Name=copz1; Synonyms=MGC80093;
OS   Xenopus laevis (African clawed frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
OC   Xenopodinae; Xenopus; Xenopus.
OX   NCBI_TaxID=8355;
RN   [1]
RP   NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RC   TISSUE=Spleen;
RG   NIH - Xenopus Gene Collection (XGC) project;
RL   Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
CC   -----
CC   Copyrighted by the UniProt Consortium, see http://www.uniprot.org/terms
CC   Distributed under the Creative Commons Attribution-NoDerivs License
CC   -----
DR   EMBL; BC072784; AAH72784.1; -; mRNA.
DR   RefSeq; NP_001085450.1; -.
DR   UniGene; Xl.45820; -.
DR   ProteinModelPortal; Q6GQG0; -.
DR   SMR; Q6GQG0; 1-149.
DR   GeneID; 443876; -.
DR   KEGG; xla:443876; -.
DR   Xenbase; XB-GENE-6251726; copz1.
DR   HOVERGEN; HBG051077; -.
DR   GO; GO:0030117; C:membrane coat; IEA:InterPro.
DR   GO; GO:0005515; F:protein binding; IEA:InterPro.
DR   GO; GO:0006886; P:intracellular protein transport; IEA:InterPro.
DR   GO; GO:0016192; P:vesicle-mediated transport; IEA:InterPro.
DR   InterPro; IPR022775; AP_mu_sigma_su.
DR   InterPro; IPR000804; Clathrin_sm-chain_CS.
DR   InterPro; IPR011012; Longin-like.
DR   Pfam; PF01217; Clat_adaptor_s; 1.
DR   SUPFAM; SSF64356; Longin_like; 1.

```

DR PROSITE; PS00989; CLAT\_ADAPTOR\_S; 1.  
PE 2: Evidence at transcript level;  
SQ SEQUENCE 177 AA; 20174 MW; 529B51DBF6D95158 CRC64;  
  
Query Match 95.6%; Score 843; DB 2; Length 177;  
Best Local Similarity 92.7%;  
Matches 164; Conservative 12; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPSVKEQKAFEKNIFNKTHRTDSEIA 60  
|:|::|:|||||||:|||||||:|||||||:|:|:|||||||  
Db 1 MDAVLLDPSLYTVKAVLILDNDGERLFAKYDETYPTVKEQKAFEKNIFNKTHRTDSEIA 60  
  
Qy 61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120  
|||||||:|||||||:|||||||:|||||||:|||||||  
Db 61 LLEGLTVVYKSSIDLYFYVIGSSHENELMLMAVLNCLFDSLSQLMRKNVEKRTLLENMDG 120  
  
Qy 121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177  
|||||||:|||||||:|||||||:|||||||:|||||||  
Db 121 LFLAVDEIIDGGVILESDPQQVVHRVALRGDDVPLTEQTVSQVLQSAKEQIKWSLLR 177

## RESULT 13

## Q7SXH1\_DANRE

ID Q7SXH1\_DANRE Unreviewed; 177 AA.  
AC Q7SXH1;  
DT 01-OCT-2003, integrated into UniProtKB/TrEMBL.  
DT 01-OCT-2003, sequence version 1.  
DT 05-OCT-2010, entry version 41.  
DE SubName: Full=Coatomer protein complex, subunit zeta 1;  
GN Name=copz1;  
OS Danio rerio (Zebrafish) (Brachydanio rerio).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;  
OC Cyprinidae; Danio.  
OX NCBI\_TaxID=7955;  
RN [1]  
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].  
RC TISSUE=Whole body;  
RG NIH - Zebrafish Gene Collection (ZGC) project;  
RL Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases.  
CC -----  
CC Copyrighted by the UniProt Consortium, see <http://www.uniprot.org/terms>  
CC Distributed under the Creative Commons Attribution-NoDerivs License  
CC -----  
DR EMBL; BC055604; AAH55604.1; -; mRNA.  
DR IPI; IPI00489034; -.  
DR UniGene; Dr.79072; -.  
DR ProteinModelPortal; Q7SXH1; -.  
DR SMR; Q7SXH1; 1-149.  
DR STRING; Q7SXH1; -.  
DR PRIDE; Q7SXH1; -.  
DR Ensembl; ENSDART00000011201; ENSDARP00000015008; ENSDARG00000017844.  
DR ZFIN; ZDB-GENE-000406-6; copz1.  
DR eggNOG; fiNOG12172; -.  
DR HOGENOM; HBG326766; -.  
DR HOVERGEN; HBG051077; -.  
DR InParanoid; Q7SXH1; -.  
DR PhylomeDB; Q7SXH1; -.  
DR ArrayExpress; Q7SXH1; -.  
DR Bgee; Q7SXH1; -.  
DR GO; GO:0030117; C:membrane coat; IEA:InterPro.  
DR GO; GO:0005515; F:protein binding; IEA:InterPro.  
DR GO; GO:0006886; P:intracellular protein transport; IEA:InterPro.  
DR GO; GO:0016192; P:vesicle-mediated transport; IEA:InterPro.  
DR InterPro; IPR022775; AP\_mu\_sigma\_su.  
DR InterPro; IPR000804; Clathrin\_sm-chain\_CS.  
DR InterPro; IPR011012; Longin-like.

DR Pfam; PF01217; Clat\_adaptor\_s; 1.  
DR SUPFAM; SSF64356; Longin\_like; 1.  
DR PROSITE; PS00989; CLAT\_ADAPTOR\_S; 1.  
PE 2: Evidence at transcript level;  
SQ SEQUENCE 177 AA; 20311 MW; BC44BEC188939BDC CRC64;

Query Match 95.5%; Score 842; DB 2; Length 177;  
Best Local Similarity 92.7%;  
Matches 164; Conservative 12; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60  
|: |||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||  
Db 1 MDTLILEPSLYTVKAVLIMDNDGERLYAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60  
  
Qy 61 LLEGLTVVYKSSIDLIFYFVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120  
|||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||  
Db 61 LLEGLTVMYKSNIDLIFYFVIGSSHENELMLMSVLNCLFDSLSQLMRKNVEKRALLENMEG 120  
  
Qy 121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177  
|||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||  
Db 121 LFLAVDEIVDGGVILESDPQQVVHRVALRGDDVPLTEQTVTQVLQSAKEQIKWSLLR 177

## RESULT 14

## C3KJY4\_ANOFI

ID C3KJY4\_ANOFI Unreviewed; 177 AA.  
AC C3KJY4;  
DT 16-JUN-2009, integrated into UniProtKB/TrEMBL.  
DT 16-JUN-2009, sequence version 1.  
DT 05-OCT-2010, entry version 8.  
DE SubName: Full=Coatomer subunit zeta-1;  
GN Name=COPZ1;  
OS Anoplopoma fimbria (Sablefish).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;  
OC Acanthomorpha; Acanthopterygii; Percomorpha; Scorpaeniformes;  
OC Anoplopomatoidei; Anoplopomatidae; Anoplopoma.  
OX NCBI\_TaxID=229290;  
RN [1]  
RP NUCLEOTIDE SEQUENCE.  
RC TISSUE=Brain;  
RA Messmer A., Rondeau E., Sanderson D., Cooper G., Leong J., Koop B.F.;  
RT "Anoplopoma fimbria ESTs and full-length cDNAs."  
RL Submitted (MAY-2009) to the EMBL/GenBank/DBDJ databases.  
CC -----  
CC Copyrighted by the UniProt Consortium, see <http://www.uniprot.org/terms>  
CC Distributed under the Creative Commons Attribution-NoDerivs License  
CC -----  
DR EMBL; BT083249; ACQ58956.1; -; mRNA.  
DR GO; GO:0006810; P:transport; IEA:InterPro.  
DR InterPro; IPR022775; AP\_mu\_sigma\_su.  
DR InterPro; IPR011012; Longin-like.  
DR Pfam; PF01217; Clat\_adaptor\_s; 1.  
DR SUPFAM; SSF64356; Longin\_like; 1.  
PE 2: Evidence at transcript level;  
SQ SEQUENCE 177 AA; 20187 MW; E665075A8B25F591 CRC64;

Query Match 94.8%; Score 836; DB 2; Length 177;  
Best Local Similarity 92.7%;  
Matches 164; Conservative 12; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60  
|:: |||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||  
Db 1 MDSPILEPSLHTVKAVLILDNDGDRLYAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60  
  
Qy 61 LLEGLTVVYKSSIDLIFYFVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120  
|||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||

Db 61 LLEGLTVVYKSNIDLFFYVIGSSHENELMLMAVLNCLFDSLSQLRKNVERRALLENMEG 120

Qy 121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177  
|||||:|||||:|||||

Db 121 LFLAVDEIVDGGVILESDPQQVVHRVALRGDDVPLTEQTVTQVLQSAKEQIKWSLLR 177

## RESULT 15

## B5X5K5\_SALSA

ID B5X5K5\_SALSA Unreviewed; 177 AA.

AC B5X5K5;

DT 25-NOV-2008, integrated into UniProtKB/TrEMBL.

DT 25-NOV-2008, sequence version 1.

DT 02-NOV-2010, entry version 10.

DE SubName: Full=Coatomer subunit zeta-1;

GN Name=COPZ1;

OS Salmo salar (Atlantic salmon).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Actinopterygii; Neopterygii; Teleostei; Euteleostei;

OC Protacanthopterygii; Salmoniformes; Salmonidae; Salmoninae; Salmo.

OX NCBI\_TaxID=8030;

RN [1]

RP NUCLEOTIDE SEQUENCE.

RC TISSUE=Brain;

RX PubMed=20433749; DOI=10.1186/1471-2164-11-279;

RA Leong J.S., Jantzen S.G., von Schalburg K.R., Cooper G.A.,

RA Messmer A.M., Liao N.Y., Munro S., Moore R., Holt R.A., Jones S.J.,

RA Davidson W.S., Koop B.F.;

RT "Salmo salar and Esox lucius full-length cDNA sequences reveal changes

RT in evolutionary pressures on a post-tetraploidization genome.";

RL BMC Genomics 11:279-279(2010).

RN [2]

RP NUCLEOTIDE SEQUENCE.

RC TISSUE=Brain;

RG cGRASP (B.F. Koop & W.S. Davidson);

RA Leong J., von Schalburg K., Cooper G., Moore R., Holt R.,

RA Davidson W.S., Koop B.F.;

RL Submitted (OCT-2008) to the EMBL/GenBank/DDBJ databases.

RN [3]

RP NUCLEOTIDE SEQUENCE.

RC TISSUE=Brain;

RG cGRASP (B.F. Koop & W.S. Davidson);

RL Submitted (AUG-2010) to the EMBL/GenBank/DDBJ databases.

RN [4]

RP NUCLEOTIDE SEQUENCE.

RC TISSUE=Mixed brain;

RG cGRASP (B.F. Koop & W.S. Davidson);

RA Leong J., von Schalburg K., Cooper G., Moore R., Holt R.,

RA Davidson W.S., Koop B.F.;

RT "Salmo salar full-length cDNAs.";

RL Submitted (FEB-2009) to the EMBL/GenBank/DDBJ databases.

RN [5]

RP NUCLEOTIDE SEQUENCE.

RC TISSUE=Brain;

RG cGRASP (B.F. Koop & W.S. Davidson);

RA Leong J., von Schalburg K., Cooper G., Moore R., Holt R.,

RA Davidson W.S., Koop B.F.;

RL Submitted (FEB-2009) to the EMBL/GenBank/DDBJ databases.

CC -----

CC Copyrighted by the UniProt Consortium, see <http://www.uniprot.org/terms>

CC Distributed under the Creative Commons Attribution-NoDerivs License

CC -----

DR EMBL; BT046324; ACI66125.1; -; mRNA.

DR EMBL; BT058392; ACN10105.1; -; mRNA.

DR EMBL; BT060094; ACN12454.1; -; mRNA.

DR HOVERGEN; HBG051077; -.

DR GO; GO:0030117; C:membrane coat; IEA:InterPro.

Query Match 94.3%; Score 832; DB 2; Length 177;  
Best Local Similarity 92.1%;  
Matches 163; Conservative 13; Mismatches 1; Indels 0; Gaps 0;

Qy	1	MEALILEPSLYTVKAILILDNDGDRFLAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA	60
		:         :         :         :     :	
Db	1	MDALSLEPTLYTVKAVLILDNDGERLYAKYYDETYPTVKEQKAFEKNIFNKTHRTDSEIA	60
Qy	61	LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLRKNVEKRALLENMEG	120
		:           :         :                     :	
Db	61	LLEGLTVVYKSNIDLYFYVIGSSHENELMLMSVLNCLFDSLSQLRKNVERRALLENMEG	120
Qy	121	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	177
		:           :         :	
Db	121	LFLAVDEIVDGGVILESDPQQVVYRVALRGDDVPLTEQTVSQVLOSACEQIKWSLLR	177

Search completed: December 14, 2010, 11:27:05  
Job time : 96.872 secs

SCORE 3.0

# SCORE Search Results Details for Application 09556178 and Search Result 20101214\_103256\_us-09-556-178-5.rapbm.

[Score Home Page](#) [Retrieve Application List](#) [SCORE System Overview](#) [SCORE FAQ](#) [Comments / Suggestions](#)

This page gives you Search Results detail for the Application 09556178 and Search Result 20101214\_103256\_us-09-556-178-5.rapbm.

[Go Back to previous page](#)

GenCore version 6.3  
Copyright (c) 1993 - 2010 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: December 14, 2010, 11:27:17 ; Search time 143 Seconds  
(without alignments)  
1680.685 Million cell updates/sec

Title: US-09-556-178-5  
Perfect score: 882  
Sequence: 1 MEALILEPSLYTVKAILILD.....QTVSQVLQSAKEQIKWSSLR 177

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 6210261 seqs, 1354514112 residues

Total number of hits satisfying chosen parameters: 6210261

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Published\_Applications\_AA\_Main:\*  
1: /ABSS/Data/CRF/ptodata/1/pubpaa/US07\_PUBCOMB.pep:\*  
2: /ABSS/Data/CRF/ptodata/1/pubpaa/US08\_PUBCOMB.pep:\*  
3: /ABSS/Data/CRF/ptodata/1/pubpaa/US09\_PUBCOMB.pep:\*  
4: /ABSS/Data/CRF/ptodata/1/pubpaa/US10A\_PUBCOMB.pep:\*  
5: /ABSS/Data/CRF/ptodata/1/pubpaa/US10B\_PUBCOMB.pep:\*  
6: /ABSS/Data/CRF/ptodata/1/pubpaa/US11A\_PUBCOMB.pep:\*  
7: /ABSS/Data/CRF/ptodata/1/pubpaa/US11B\_PUBCOMB.pep:\*  
8: /ABSS/Data/CRF/ptodata/1/pubpaa/US12\_PUBCOMB.pep:\*  
SUMMARIES

		%				
		Query				
Result No.	Score	Match	Length	DB	ID	Description
1	882	100.0	177	5	US-10-528-183-26	Sequence 26, Appl
2	882	100.0	177	6	US-11-371-354-73107	Sequence 73107, A
3	882	100.0	177	6	US-11-443-428A-819809	Sequence 819809,
4	882	100.0	177	7	US-11-597-825-1351	Sequence 1351, Ap
5	882	100.0	177	8	US-12-399-906-29	Sequence 29, Appl
6	882	100.0	192	6	US-11-443-428A-819804	Sequence 819804,
7	882	100.0	192	6	US-11-443-428A-819805	Sequence 819805,
8	882	100.0	192	6	US-11-443-428A-819806	Sequence 819806,
9	882	100.0	192	6	US-11-443-428A-819808	Sequence 819808,



10	882	100.0	192	6	US-11-443-428A-819810	Sequence 819810,
11	882	100.0	192	6	US-11-443-428A-819816	Sequence 819816,
12	882	100.0	192	6	US-11-443-428A-819818	Sequence 819818,
13	882	100.0	192	6	US-11-443-428A-819819	Sequence 819819,
14	882	100.0	192	6	US-11-443-428A-819821	Sequence 819821,
15	882	100.0	192	6	US-11-443-428A-819823	Sequence 819823,
16	882	100.0	192	6	US-11-443-428A-819825	Sequence 819825,
17	882	100.0	200	6	US-11-443-428A-819807	Sequence 819807,
18	882	100.0	205	6	US-11-443-428A-819812	Sequence 819812,
19	868	98.4	182	6	US-11-443-428A-819814	Sequence 819814,
20	858	97.3	172	6	US-11-443-428A-819813	Sequence 819813,
21	856	97.1	177	6	US-11-443-428A-819815	Sequence 819815,
22	856	97.1	178	6	US-11-443-428A-819811	Sequence 819811,
23	845	95.8	177	4	US-10-403-571-30	Sequence 30, Appl
24	712	80.7	144	4	US-10-425-115-275189	Sequence 275189,
25	712	80.7	144	5	US-10-425-115-275189	Sequence 275189,
26	701	79.5	173	6	US-11-443-428A-819820	Sequence 819820,
27	673	76.3	210	5	US-10-528-183-14	Sequence 14, Appl
28	673	76.3	210	5	US-10-743-643-2465	Sequence 2465, Ap
29	673	76.3	210	6	US-11-371-354-59225	Sequence 59225, A
30	673	76.3	210	8	US-12-399-906-30	Sequence 30, Appl
31	673	76.3	214	6	US-11-443-428A-823399	Sequence 823399,
32	564.5	64.0	160	6	US-11-097-143-7677	Sequence 7677, Ap
33	542	61.5	134	6	US-11-443-428A-819826	Sequence 819826,
34	518	58.7	136	6	US-11-443-428A-823401	Sequence 823401,
35	510	57.8	169	6	US-11-443-428A-823406	Sequence 823406,
36	507.5	57.5	181	7	US-11-360-355-120385	Sequence 120385,
37	507.5	57.5	181	7	US-11-360-355-122102	Sequence 122102,
38	507.5	57.5	181	8	US-12-101-830-120385	Sequence 120385,
39	507.5	57.5	181	8	US-12-101-830-122102	Sequence 122102,
40	487	55.2	177	6	US-11-443-428A-819824	Sequence 819824,
41	454	51.5	138	6	US-11-443-428A-823403	Sequence 823403,
42	441.5	50.1	154	7	US-11-360-355-123790	Sequence 123790,
43	441.5	50.1	154	8	US-12-101-830-123790	Sequence 123790,
44	440	49.9	99	3	US-09-925-297-776	Sequence 776, App
45	440	49.9	125	6	US-11-443-428A-819817	Sequence 819817,

## ALIGNMENTS

## RESULT 1

US-10-528-183-26

```

; Sequence 26, Application US/10528183
; Publication No. US20050226879A1
; GENERAL INFORMATION:
; APPLICANT: Ullman, Katharine
; APPLICANT: Liu, Jin
; APPLICANT: Prunuske, Amy
; APPLICANT: Dimaano, Christian
; TITLE OF INVENTION: METHODS AND COMPOSITIONS RELATED TO
; TITLE OF INVENTION: INHIBITING NUCLEAR ENVELOPE BREAKDOWN
; FILE REFERENCE: 21101.0045U2
; CURRENT APPLICATION NUMBER: US/10/528,183
; CURRENT FILING DATE: 2005-03-17
; PRIOR APPLICATION NUMBER: PCT/US03/29267
; PRIOR FILING DATE: 2003-09-17
; PRIOR APPLICATION NUMBER: 60/411,248
; PRIOR FILING DATE: 2002-09-17
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 26
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:/note =

```

; OTHER INFORMATION: synthetic construct  
US-10-528-183-26

Query Match 100.0%; Score 882; DB 5; Length 177;  
Best Local Similarity 100.0%;  
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
        |||
Db      1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60

Qy     61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
        |||
Db     61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120

Qy    121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
        |||
Db    121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
```

## RESULT 2

US-11-371-354-73107

; Sequence 73107, Application US/11371354

; Publication No. US20060275794A1

; GENERAL INFORMATION:

; APPLICANT: CARRINO, JOHN

; APPLICANT: LIANG, FENG

; TITLE OF INVENTION: COLLECTIONS OF MATCHED BIOLOGICAL REAGENTS AND METHODS FOR

; TITLE OF INVENTION: IDENTIFYING MATCHED REAGENTS

; FILE REFERENCE: INV-1005-UT2

; CURRENT APPLICATION NUMBER: US/11/371,354

; CURRENT FILING DATE: 2006-03-07

; PRIOR APPLICATION NUMBER: 60/673,045

; PRIOR FILING DATE: 2005-04-19

; PRIOR APPLICATION NUMBER: 60/665,199

; PRIOR FILING DATE: 2005-03-25

; PRIOR APPLICATION NUMBER: 60/665,200

; PRIOR FILING DATE: 2005-03-25

; PRIOR APPLICATION NUMBER: 60/659,493

; PRIOR FILING DATE: 2005-03-07

; PRIOR APPLICATION NUMBER: 60/659,492

; PRIOR FILING DATE: 2005-03-07

; PRIOR APPLICATION NUMBER: 60/953,586

; PRIOR FILING DATE: 2005-02-15

; PRIOR APPLICATION NUMBER: 60/651,390

; PRIOR FILING DATE: 2005-02-08

; NUMBER OF SEQ ID NOS: 78682

; SOFTWARE: PatentIn version 3.3

; SEQ ID NO 73107

; LENGTH: 177

; TYPE: PRT

; ORGANISM: Homo sapiens

US-11-371-354-73107

Query Match 100.0%; Score 882; DB 6; Length 177;  
Best Local Similarity 100.0%;  
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
        |||
Db      1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60

Qy     61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
        |||
Db     61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120

Qy    121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
```

```

          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
```

## RESULT 3

```
US-11-443-428A-819809
; Sequence 819809, Application US/11443428A
; Publication No. US20070083334A1
; GENERAL INFORMATION:
; APPLICANT: Mintz, Liat
; APPLICANT: Xie, Hanqing
; APPLICANT: Dahari, Dvir
; APPLICANT: Levanon, Erez
; APPLICANT: Freilich, Shiri
; APPLICANT: Beck, Nili
; APPLICANT: Zhu, Wei-Yong
; APPLICANT: Wasserman, Alon
; APPLICANT: Hermesh, Chen
; APPLICANT: Azar, Idit
; APPLICANT: Bernstein, Jeanne
; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES
; FILE REFERENCE: 02/23929
; CURRENT APPLICATION NUMBER: US/11/443,428A
; CURRENT FILING DATE: 2006-05-31
; NUMBER OF SEQ ID NOS: 1034312
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 819809
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-443-428A-819809
```

```
Query Match          100.0%; Score 882; DB 6; Length 177;
Best Local Similarity 100.0%;
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

```
Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60

Qy      61 LLEGLTVVYKSSIDLIFYFVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      61 LLEGLTVVYKSSIDLIFYFVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120

Qy      121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
```

## RESULT 4

```
US-11-597-825-1351
; Sequence 1351, Application US/11597825
; Publication No. US20090297536A1
; GENERAL INFORMATION:
; APPLICANT: CHIN, Lynda
; TITLE OF INVENTION: COMPOSITIONS, KITS, AND METHODS FOR
; TITLE OF INVENTION: IDENTIFICATION, ASSESSMENT, PREVENTION, AND THERAPY OF
; TITLE OF INVENTION: CANCER
; FILE REFERENCE: DFN-059-2
; CURRENT APPLICATION NUMBER: US/11/597,825
; CURRENT FILING DATE: 2006-11-27
; NUMBER OF SEQ ID NOS: 1528
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1351
; LENGTH: 177
; TYPE: PRT
; ORGANISM: Homo sapiens
```



```

; APPLICANT:  Levanon, Erez
; APPLICANT:  Freilich, Shiri
; APPLICANT:  Beck, Nili
; APPLICANT:  Zhu, Wei-Yong
; APPLICANT:  Wasserman, Alon
; APPLICANT:  Hermesh, Chen
; APPLICANT:  Azar, Idit
; APPLICANT:  Bernstein, Jeanne
; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES
; FILE REFERENCE: 02/23929
; CURRENT APPLICATION NUMBER: US/11/443,428A
; CURRENT FILING DATE: 2006-05-31
; NUMBER OF SEQ ID NOS: 1034312
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 819804
;   LENGTH: 192
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-443-428A-819804

```

```

Query Match          100.0%;  Score 882;  DB 6;  Length 192;
Best Local Similarity 100.0%;
Matches 177;  Conservative 0;  Mismatches 0;  Indels 0;  Gaps 0;

```

```

Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
          |||
Db      16 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 75
          |||

Qy      61 LLEGLTVVYKSSIDLIFYFVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
          |||
Db      76 LLEGLTVVYKSSIDLIFYFVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 135
          |||

Qy      121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
          |||
Db      136 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 192
          |||

```

## RESULT 7

US-11-443-428A-819805

; Sequence 819805, Application US/11443428A

; Publication No. US20070083334A1

; GENERAL INFORMATION:

; APPLICANT: Mintz, Liat

; APPLICANT: Xie, Hanqing

; APPLICANT: Dahari, Dvir

; APPLICANT: Levanon, Erez

; APPLICANT: Freilich, Shiri

; APPLICANT: Beck, Nili

; APPLICANT: Zhu, Wei-Yong

; APPLICANT: Wasserman, Alon

; APPLICANT: Hermesh, Chen

; APPLICANT: Azar, Idit

; APPLICANT: Bernstein, Jeanne

; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES

; FILE REFERENCE: 02/23929

; CURRENT APPLICATION NUMBER: US/11/443,428A

; CURRENT FILING DATE: 2006-05-31

; NUMBER OF SEQ ID NOS: 1034312

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 819805

; LENGTH: 192

; TYPE: PRT

; ORGANISM: Homo sapiens

US-11-443-428A-819805

```

Query Match          100.0%;  Score 882;  DB 6;  Length 192;
Best Local Similarity 100.0%;

```

```
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
      |||
Db      16 MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 75

Qy      61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
      |||
Db      76 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 135

Qy      121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
      |||
Db      136 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 192
```

## RESULT 8

US-11-443-428A-819806

; Sequence 819806, Application US/11443428A

; Publication No. US20070083334A1

; GENERAL INFORMATION:

; APPLICANT: Mintz, Liat

; APPLICANT: Xie, Hanqing

; APPLICANT: Dahari, Dvir

; APPLICANT: Levanon, Erez

; APPLICANT: Freilich, Shiri

; APPLICANT: Beck, Nili

; APPLICANT: Zhu, Wei-Yong

; APPLICANT: Wasserman, Alon

; APPLICANT: Hermesh, Chen

; APPLICANT: Azar, Idit

; APPLICANT: Bernstein, Jeanne

; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES

; FILE REFERENCE: 02/23929

; CURRENT APPLICATION NUMBER: US/11/443,428A

; CURRENT FILING DATE: 2006-05-31

; NUMBER OF SEQ ID NOS: 1034312

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 819806

; LENGTH: 192

; TYPE: PRT

; ORGANISM: Homo sapiens

US-11-443-428A-819806

```
Query Match          100.0%; Score 882; DB 6; Length 192;
Best Local Similarity 100.0%;
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

```
Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
      |||
Db      16 MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 75

Qy      61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
      |||
Db      76 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 135

Qy      121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
      |||
Db      136 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 192
```

## RESULT 9

US-11-443-428A-819808

; Sequence 819808, Application US/11443428A

; Publication No. US20070083334A1

; GENERAL INFORMATION:

; APPLICANT: Mintz, Liat

; APPLICANT: Xie, Hanqing

```
; APPLICANT: Dahari, Dvir
; APPLICANT: Levanon, Erez
; APPLICANT: Freilich, Shiri
; APPLICANT: Beck, Nili
; APPLICANT: Zhu, Wei-Yong
; APPLICANT: Wasserman, Alon
; APPLICANT: Hermesh, Chen
; APPLICANT: Azar, Idit
; APPLICANT: Bernstein, Jeanne
; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES
; FILE REFERENCE: 02/23929
; CURRENT APPLICATION NUMBER: US/11/443,428A
; CURRENT FILING DATE: 2006-05-31
; NUMBER OF SEQ ID NOS: 1034312
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 819808
; LENGTH: 192
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-443-428A-819808
```

```
Query Match          100.0%;  Score 882;  DB 6;  Length 192;
Best Local Similarity 100.0%;
Matches 177;  Conservative 0;  Mismatches 0;  Indels 0;  Gaps 0;
```

```
Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
          |||
Db      16 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 75

Qy      61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
          |||
Db      76 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 135

Qy      121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
          |||
Db      136 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 192
```

## RESULT 10

```
US-11-443-428A-819810
; Sequence 819810, Application US/11443428A
; Publication No. US20070083334A1
; GENERAL INFORMATION:
; APPLICANT: Mintz, Liat
; APPLICANT: Xie, Hanqing
; APPLICANT: Dahari, Dvir
; APPLICANT: Levanon, Erez
; APPLICANT: Freilich, Shiri
; APPLICANT: Beck, Nili
; APPLICANT: Zhu, Wei-Yong
; APPLICANT: Wasserman, Alon
; APPLICANT: Hermesh, Chen
; APPLICANT: Azar, Idit
; APPLICANT: Bernstein, Jeanne
; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES
; FILE REFERENCE: 02/23929
; CURRENT APPLICATION NUMBER: US/11/443,428A
; CURRENT FILING DATE: 2006-05-31
; NUMBER OF SEQ ID NOS: 1034312
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 819810
; LENGTH: 192
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-443-428A-819810
```

```
Query Match          100.0%;  Score 882;  DB 6;  Length 192;
```

Best Local Similarity 100.0%;  
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA	60
Db	16	MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA	75
Qy	61	LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG	120
Db	76	LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG	135
Qy	121	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	177
Db	136	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	192

## RESULT 11

US-11-443-428A-819816

; Sequence 819816, Application US/11443428A

; Publication No. US20070083334A1

; GENERAL INFORMATION:

; APPLICANT: Mintz, Liat

; APPLICANT: Xie, Hanqing

; APPLICANT: Dahari, Dvir

; APPLICANT: Levanon, Erez

; APPLICANT: Freilich, Shiri

; APPLICANT: Beck, Nili

; APPLICANT: Zhu, Wei-Yong

; APPLICANT: Wasserman, Alon

; APPLICANT: Hermesh, Chen

; APPLICANT: Azar, Idit

; APPLICANT: Bernstein, Jeanne

; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES

; FILE REFERENCE: 02/23929

; CURRENT APPLICATION NUMBER: US/11/443,428A

; CURRENT FILING DATE: 2006-05-31

; NUMBER OF SEQ ID NOS: 1034312

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 819816

; LENGTH: 192

; TYPE: PRT

; ORGANISM: Homo sapiens

US-11-443-428A-819816

Query Match 100.0%; Score 882; DB 6; Length 192;  
Best Local Similarity 100.0%;  
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA	60
Db	16	MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA	75
Qy	61	LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG	120
Db	76	LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG	135
Qy	121	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	177
Db	136	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	192

## RESULT 12

US-11-443-428A-819818

; Sequence 819818, Application US/11443428A

; Publication No. US20070083334A1

; GENERAL INFORMATION:

; APPLICANT: Mintz, Liat



```
; APPLICANT: Xie, Hanqing
; APPLICANT: Dahari, Dvir
; APPLICANT: Levanon, Erez
; APPLICANT: Freilich, Shiri
; APPLICANT: Beck, Nili
; APPLICANT: Zhu, Wei-Yong
; APPLICANT: Wasserman, Alon
; APPLICANT: Hermesh, Chen
; APPLICANT: Azar, Idit
; APPLICANT: Bernstein, Jeanne
; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES
; FILE REFERENCE: 02/23929
; CURRENT APPLICATION NUMBER: US/11/443,428A
; CURRENT FILING DATE: 2006-05-31
; NUMBER OF SEQ ID NOS: 1034312
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 819818
; LENGTH: 192
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-443-428A-819818
```

```
Query Match          100.0%; Score 882; DB 6; Length 192;
Best Local Similarity 100.0%;
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

```
Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      16 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 75

Qy      61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      76 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 135

Qy     121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     136 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 192
```

## RESULT 13

```
US-11-443-428A-819819
; Sequence 819819, Application US/11443428A
; Publication No. US20070083334A1
; GENERAL INFORMATION:
; APPLICANT: Mintz, Liat
; APPLICANT: Xie, Hanqing
; APPLICANT: Dahari, Dvir
; APPLICANT: Levanon, Erez
; APPLICANT: Freilich, Shiri
; APPLICANT: Beck, Nili
; APPLICANT: Zhu, Wei-Yong
; APPLICANT: Wasserman, Alon
; APPLICANT: Hermesh, Chen
; APPLICANT: Azar, Idit
; APPLICANT: Bernstein, Jeanne
; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES
; FILE REFERENCE: 02/23929
; CURRENT APPLICATION NUMBER: US/11/443,428A
; CURRENT FILING DATE: 2006-05-31
; NUMBER OF SEQ ID NOS: 1034312
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 819819
; LENGTH: 192
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-443-428A-819819
```

Query Match 100.0%; Score 882; DB 6; Length 192;  
Best Local Similarity 100.0%;  
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVSVEQKAFEKNIFNKTHTDSEIA	60
Db	16	MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVSVEQKAFEKNIFNKTHTDSEIA	75
Qy	61	LLEGLTVVYKSSIDLIFYVIGSSYENELMLMAVLNCLFDSLSQMLRKNVEKRALLENMEG	120
Db	76	LLEGLTVVYKSSIDLIFYVIGSSYENELMLMAVLNCLFDSLSQMLRKNVEKRALLENMEG	135
Qy	121	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	177
Db	136	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	192

RESULT 14

```

US-11-443-428A-819821
; Sequence 819821, Application US/11443428A
; Publication No. US20070083334A1
; GENERAL INFORMATION:
; APPLICANT: Mintz, Liat
; APPLICANT: Xie, Hanqing
; APPLICANT: Dahari, Dvir
; APPLICANT: Levanon, Erez
; APPLICANT: Freilich, Shiri
; APPLICANT: Beck, Nili
; APPLICANT: Zhu, Wei-Yong
; APPLICANT: Wasserman, Alon
; APPLICANT: Hermesh, Chen
; APPLICANT: Azar, Idit
; APPLICANT: Bernstein, Jeanne
; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES
; FILE REFERENCE: 02/23929
; CURRENT APPLICATION NUMBER: US/11/443,428A
; CURRENT FILING DATE: 2006-05-31
; NUMBER OF SEQ ID NOS: 1034312
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 819821
; LENGTH: 192
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-443-428A-819821

```

Query Match 100.0%; Score 882; DB 6; Length 192;  
Best Local Similarity 100.0%;  
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFKKNIFNKTHRTDSEIA	60
Db	16	MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFKKNIFNKTHRTDSEIA	75
Qy	61	LLEGLTVVYKSSIDLIFYFVIGSSYENELMLMAVLNCLFDSLQMLRKNVEKRALLENMEG	120
Db	76	LLEGLTVVYKSSIDLIFYFVIGSSYENELMLMAVLNCLFDSLQMLRKNVEKRALLENMEG	135
Qy	121	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	177
Db	136	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	192

RESULT 15

US-11-443-428A-819823  
; Sequence 819823, Application US/11443428A  
; Publication No. US20070083334A1  
; GENERAL INFORMATION:

; APPLICANT: Mintz, Liat  
; APPLICANT: Xie, Hanqing  
; APPLICANT: Dahari, Dvir  
; APPLICANT: Levanon, Erez  
; APPLICANT: Freilich, Shiri  
; APPLICANT: Beck, Nili  
; APPLICANT: Zhu, Wei-Yong  
; APPLICANT: Wasserman, Alon  
; APPLICANT: Hermesh, Chen  
; APPLICANT: Azar, Idit  
; APPLICANT: Bernstein, Jeanne  
; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES  
; FILE REFERENCE: 02/23929  
; CURRENT APPLICATION NUMBER: US/11/443,428A  
; CURRENT FILING DATE: 2006-05-31  
; NUMBER OF SEQ ID NOS: 1034312  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 819823  
; LENGTH: 192  
; TYPE: PRT  
; ORGANISM: Homo sapiens  
US-11-443-428A-819823

Query Match 100.0%; Score 882; DB 6; Length 192;  
Best Local Similarity 100.0%;  
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA	60
Db	16	MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA	75
Qy	61	LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLRKNVEKRALLENMEG	120
Db	76	LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLRKNVEKRALLENMEG	135
Qy	121	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	177
Db	136	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	192

Search completed: December 14, 2010, 11:32:16  
Job time : 142.65 secs

SCORE 3.0

# SCORE Search Results Details for Application 09556178 and Search Result 20101214\_103255\_us-09-556-178-5.ra1.

[Score Home Page](#) [Retrieve Application List](#) [SCORE System Overview](#) [SCORE FAQ](#) [Comments / Suggestions](#)

This page gives you Search Results detail for the Application 09556178 and Search Result 20101214\_103255\_us-09-556-178-5.ra1.

[Go Back to previous page](#)

GenCore version 6.3  
Copyright (c) 1993 - 2010 Biocceleration Ltd.

OM protein - protein search, using sw model

Run on: December 14, 2010, 11:24:20 ; Search time 25 Seconds  
(without alignments)  
2826.599 Million cell updates/sec

Title: US-09-556-178-5  
Perfect score: 882  
Sequence: 1 MEALILEPSLYTVKAILILD.....QTVSQVLQSAKEQIKWSSLR 177

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 2170800 seqs, 396181022 residues

Total number of hits satisfying chosen parameters: 2170800

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Issued\_Patents\_AA:\*  
1: /ABSS/Data/CRF/ptodata/1/iaa/5\_COMB.pep:\*  
2: /ABSS/Data/CRF/ptodata/1/iaa/6\_COMB.pep:\*  
3: /ABSS/Data/CRF/ptodata/1/iaa/7\_COMB.pep:\*  
4: /ABSS/Data/CRF/ptodata/1/iaa/H\_COMB.pep:\*  
5: /ABSS/Data/CRF/ptodata/1/iaa/PCTUS\_COMB.pep:\*  
6: /ABSS/Data/CRF/ptodata/1/iaa/RE\_COMB.pep:\*  
7: /ABSS/Data/CRF/ptodata/1/iaa/backfiles1.pep:\*  
SUMMARIES

Result No.	Score	% Query		DB	ID	Description
		Match	Length			
1	882	100.0	177	1	US-08-967-364-5	Sequence 5, Appli
2	882	100.0	177	2	US-09-368-408-5	Sequence 5, Appli
3	882	100.0	177	3	US-11-443-428A-819809	Sequence 819809,
4	882	100.0	192	3	US-11-443-428A-819804	Sequence 819804,
5	882	100.0	192	3	US-11-443-428A-819805	Sequence 819805,
6	882	100.0	192	3	US-11-443-428A-819806	Sequence 819806,
7	882	100.0	192	3	US-11-443-428A-819808	Sequence 819808,
8	882	100.0	192	3	US-11-443-428A-819810	Sequence 819810,
9	882	100.0	192	3	US-11-443-428A-819816	Sequence 819816,
10	882	100.0	192	3	US-11-443-428A-819818	Sequence 819818,

11	882	100.0	192	3	US-11-443-428A-819819	Sequence 819819,
12	882	100.0	192	3	US-11-443-428A-819821	Sequence 819821,
13	882	100.0	192	3	US-11-443-428A-819823	Sequence 819823,
14	882	100.0	192	3	US-11-443-428A-819825	Sequence 819825,
15	882	100.0	200	3	US-11-443-428A-819807	Sequence 819807,
16	882	100.0	205	3	US-11-443-428A-819812	Sequence 819812,
17	875	99.2	177	1	US-08-967-364-9	Sequence 9, Appli
18	875	99.2	177	2	US-09-368-408-9	Sequence 9, Appli
19	868	98.4	182	3	US-11-443-428A-819814	Sequence 819814,
20	858	97.3	172	3	US-11-443-428A-819813	Sequence 819813,
21	856	97.1	177	3	US-11-443-428A-819815	Sequence 819815,
22	856	97.1	178	3	US-11-443-428A-819811	Sequence 819811,
23	701	79.5	173	3	US-11-443-428A-819820	Sequence 819820,
24	673	76.3	214	3	US-11-443-428A-823399	Sequence 823399,
25	671	76.1	137	2	US-09-513-999C-5551	Sequence 5551, Ap
26	671	76.1	137	3	US-10-793-479-5551	Sequence 5551, Ap
27	542	61.5	134	3	US-11-443-428A-819826	Sequence 819826,
28	518	58.7	136	3	US-11-443-428A-823401	Sequence 823401,
29	510	57.8	169	3	US-11-443-428A-823406	Sequence 823406,
30	487	55.2	177	3	US-11-443-428A-819824	Sequence 819824,
31	454	51.5	138	3	US-11-443-428A-823403	Sequence 823403,
32	440	49.9	125	3	US-11-443-428A-819817	Sequence 819817,
33	360.5	40.9	95	3	US-11-443-428A-1002249	Sequence 1002249,
34	357	40.5	177	3	US-10-703-032-129014	Sequence 129014,
35	357	40.5	177	3	US-11-241-607-37572	Sequence 37572, A
36	356.5	40.4	183	3	US-10-767-701-44154	Sequence 44154, A
37	344.5	39.1	176	3	US-11-241-607-52299	Sequence 52299, A
38	340.5	38.6	176	3	US-10-767-701-39442	Sequence 39442, A
39	340	38.5	177	3	US-10-703-032-107720	Sequence 107720,
40	306.5	34.8	197	3	US-10-703-032-105938	Sequence 105938,
41	260	29.5	186	3	US-10-703-032-106783	Sequence 106783,
42	252	28.6	126	3	US-11-443-428A-819822	Sequence 819822,
43	250	28.3	97	3	US-11-443-428A-949290	Sequence 949290,
44	243	27.6	119	3	US-11-241-607-37573	Sequence 37573, A
45	228	25.9	116	3	US-10-703-032-128901	Sequence 128901,

## ALIGNMENTS

## RESULT 1

US-08-967-364-5

; Sequence 5, Application US/08967364

; Patent No. 5989859

## ; GENERAL INFORMATION:

; APPLICANT: Bandman, Olga

; APPLICANT: Lal, Preeti

; APPLICANT: Guegler, Karl J.

; APPLICANT: Shah, Purvi

; APPLICANT: Corley, Neil C.

; TITLE OF INVENTION: VESICLE TRAFFICKING PROTEINS

; NUMBER OF SEQUENCES: 9

## ; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Incyte Pharmaceuticals, Inc.

; STREET: 3174 Porter Dr.

; CITY: Palo Alto

; STATE: CA

; COUNTRY: USA

; ZIP: 94304

## ; COMPUTER READABLE FORM:

; MEDIUM TYPE: Diskette

; COMPUTER: IBM Compatible

; OPERATING SYSTEM: DOS

; SOFTWARE: FastSEQ for Windows Version 2.0

## ; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/967,364

; FILING DATE: No. 5989859ember 7, 1997

```
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Cerrone, Michael C.
; REGISTRATION NUMBER: 39,132
; REFERENCE/DOCKET NUMBER: PF-0417 US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 650-855-0555
; TELEFAX: 650-845-4166
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 177 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; LIBRARY: HEAONOT03
; CLONE: 3086794
US-08-967-364-5
```

```
Query Match          100.0%; Score 882; DB 1; Length 177;
Best Local Similarity 100.0%;
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

```
Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
          |||
Db      1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60

Qy      61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
          |||
Db      61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120

Qy      121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
          |||
Db      121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
```

## RESULT 2

US-09-368-408-5

```
; Sequence 5, Application US/09368408
; Patent No. 6071703
; GENERAL INFORMATION:
; APPLICANT: Bandman, Olga
; APPLICANT: Lal, Preeti
; APPLICANT: Guegler, Karl J.
; APPLICANT: Shah, Purvi
; APPLICANT: Corley, Neil C.
; TITLE OF INVENTION: VESICLE TRAFFICKING PROTEINS
; NUMBER OF SEQUENCES: 9
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Incyte Pharmaceuticals, Inc.
; STREET: 3174 Porter Dr.
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSEQ for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/368,408
; FILING DATE:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/967,364
```

```
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Cerrone, Michael C.
; REGISTRATION NUMBER: 39,132
; REFERENCE/DOCKET NUMBER: PF-0417 US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 650-855-0555
; TELEFAX: 650-845-4166
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 177 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; LIBRARY: HEAONOT03
; CLONE: 3086794
US-09-368-408-5
```

```
Query Match          100.0%; Score 882; DB 2; Length 177;
Best Local Similarity 100.0%;
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

```
Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
          |||
Db      1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60

Qy     61 LLEGLTVVYKSSIDLIFYVIGSSYENELMLMAVLNCLFDSLSQLRKNVEKRALLENMEG 120
          |||
Db     61 LLEGLTVVYKSSIDLIFYVIGSSYENELMLMAVLNCLFDSLSQLRKNVEKRALLENMEG 120

Qy    121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
          |||
Db    121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
```

## RESULT 3

US-11-443-428A-819809

; Sequence 819809, Application US/11443428A

; Patent No. 7745391

; GENERAL INFORMATION:

; APPLICANT: Mintz, Liat

; APPLICANT: Xie, Hanqing

; APPLICANT: Dahari, Dvir

; APPLICANT: Levanon, Erez

; APPLICANT: Freilich, Shiri

; APPLICANT: Beck, Nili

; APPLICANT: Zhu, Wei-Yong

; APPLICANT: Wasserman, Alon

; APPLICANT: Hermesh, Chen

; APPLICANT: Azar, Idit

; APPLICANT: Bernstein, Jeanne

; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES

; FILE REFERENCE: 02/23929

; CURRENT APPLICATION NUMBER: US/11/443,428A

; CURRENT FILING DATE: 2006-05-31

; NUMBER OF SEQ ID NOS: 1034312

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 819809

; LENGTH: 177

; TYPE: PRT

; ORGANISM: Homo sapiens

US-11-443-428A-819809

```
Query Match          100.0%; Score 882; DB 3; Length 177;
Best Local Similarity 100.0%;
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

```
Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
|
Db      1 MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60

Qy     61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
|
Db     61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120

Qy    121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
|
Db    121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
```

## RESULT 4

```
US-11-443-428A-819804
; Sequence 819804, Application US/11443428A
; Patent No. 7745391
; GENERAL INFORMATION:
; APPLICANT: Mintz, Liat
; APPLICANT: Xie, Hanqing
; APPLICANT: Dahari, Dvir
; APPLICANT: Levanon, Erez
; APPLICANT: Freilich, Shiri
; APPLICANT: Beck, Nili
; APPLICANT: Zhu, Wei-Yong
; APPLICANT: Wasserman, Alon
; APPLICANT: Hermesh, Chen
; APPLICANT: Azar, Idit
; APPLICANT: Bernstein, Jeanne
; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES
; FILE REFERENCE: 02/23929
; CURRENT APPLICATION NUMBER: US/11/443,428A
; CURRENT FILING DATE: 2006-05-31
; NUMBER OF SEQ ID NOS: 1034312
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 819804
; LENGTH: 192
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-443-428A-819804
```

```
Query Match      100.0%;  Score 882;  DB 3;  Length 192;
Best Local Similarity 100.0%;
Matches 177;  Conservative 0;  Mismatches 0;  Indels 0;  Gaps 0;
```

```
Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
|
Db     16 MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 75

Qy     61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
|
Db     76 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 135

Qy    121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
|
Db    136 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 192
```

## RESULT 5

```
US-11-443-428A-819805
; Sequence 819805, Application US/11443428A
; Patent No. 7745391
; GENERAL INFORMATION:
; APPLICANT: Mintz, Liat
; APPLICANT: Xie, Hanqing
; APPLICANT: Dahari, Dvir
```



```
; APPLICANT:  Levanon, Erez
; APPLICANT:  Freilich, Shiri
; APPLICANT:  Beck, Nili
; APPLICANT:  Zhu, Wei-Yong
; APPLICANT:  Wasserman, Alon
; APPLICANT:  Hermesh, Chen
; APPLICANT:  Azar, Idit
; APPLICANT:  Bernstein, Jeanne
; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES
; FILE REFERENCE: 02/23929
; CURRENT APPLICATION NUMBER: US/11/443,428A
; CURRENT FILING DATE:   2006-05-31
; NUMBER OF SEQ ID NOS: 1034312
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 819805
;   LENGTH: 192
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-443-428A-819805
```

```
Query Match          100.0%;   Score 882;   DB 3;   Length 192;
Best Local Similarity 100.0%;
Matches 177;   Conservative    0;   Mismatches    0;   Indels    0;   Gaps    0;
```

```
Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
          |||
Db      16 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 75

Qy      61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
          |||
Db      76 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 135

Qy     121 LFLAVDEIVDGGVILESDPQQVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
          |||
Db     136 LFLAVDEIVDGGVILESDPQQVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 192
```

## RESULT 6

```
US-11-443-428A-819806
; Sequence 819806, Application US/11443428A
; Patent No. 7745391
; GENERAL INFORMATION:
; APPLICANT:  Mintz, Liat
; APPLICANT:  Xie, Hanqing
; APPLICANT:  Dahari, Dvir
; APPLICANT:  Levanon, Erez
; APPLICANT:  Freilich, Shiri
; APPLICANT:  Beck, Nili
; APPLICANT:  Zhu, Wei-Yong
; APPLICANT:  Wasserman, Alon
; APPLICANT:  Hermesh, Chen
; APPLICANT:  Azar, Idit
; APPLICANT:  Bernstein, Jeanne
; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES
; FILE REFERENCE: 02/23929
; CURRENT APPLICATION NUMBER: US/11/443,428A
; CURRENT FILING DATE:   2006-05-31
; NUMBER OF SEQ ID NOS: 1034312
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 819806
;   LENGTH: 192
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-443-428A-819806
```

```
Query Match          100.0%;   Score 882;   DB 3;   Length 192;
Best Local Similarity 100.0%;
```

```
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
      |||
Db      16 MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 75

Qy      61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
      |||
Db      76 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 135

Qy      121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
      |||
Db      136 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 192
```

## RESULT 7

US-11-443-428A-819808

; Sequence 819808, Application US/11443428A

; Patent No. 7745391

; GENERAL INFORMATION:

; APPLICANT: Mintz, Liat

; APPLICANT: Xie, Hanqing

; APPLICANT: Dahari, Dvir

; APPLICANT: Levanon, Erez

; APPLICANT: Freilich, Shiri

; APPLICANT: Beck, Nili

; APPLICANT: Zhu, Wei-Yong

; APPLICANT: Wasserman, Alon

; APPLICANT: Hermesh, Chen

; APPLICANT: Azar, Idit

; APPLICANT: Bernstein, Jeanne

; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES

; FILE REFERENCE: 02/23929

; CURRENT APPLICATION NUMBER: US/11/443,428A

; CURRENT FILING DATE: 2006-05-31

; NUMBER OF SEQ ID NOS: 1034312

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 819808

; LENGTH: 192

; TYPE: PRT

; ORGANISM: Homo sapiens

US-11-443-428A-819808

Query Match 100.0%; Score 882; DB 3; Length 192;

Best Local Similarity 100.0%;

Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
      |||
Db      16 MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 75

Qy      61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
      |||
Db      76 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 135

Qy      121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
      |||
Db      136 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 192
```

## RESULT 8

US-11-443-428A-819810

; Sequence 819810, Application US/11443428A

; Patent No. 7745391

; GENERAL INFORMATION:

; APPLICANT: Mintz, Liat

; APPLICANT: Xie, Hanqing

```
; APPLICANT: Dahari, Dvir
; APPLICANT: Levanon, Erez
; APPLICANT: Freilich, Shiri
; APPLICANT: Beck, Nili
; APPLICANT: Zhu, Wei-Yong
; APPLICANT: Wasserman, Alon
; APPLICANT: Hermesh, Chen
; APPLICANT: Azar, Idit
; APPLICANT: Bernstein, Jeanne
; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES
; FILE REFERENCE: 02/23929
; CURRENT APPLICATION NUMBER: US/11/443,428A
; CURRENT FILING DATE: 2006-05-31
; NUMBER OF SEQ ID NOS: 1034312
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 819810
; LENGTH: 192
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-443-428A-819810
```

```
Query Match          100.0%;  Score 882;  DB 3;  Length 192;
Best Local Similarity 100.0%;
Matches 177;  Conservative 0;  Mismatches 0;  Indels 0;  Gaps 0;
```

```
Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
          |||
Db      16 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 75

Qy      61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
          |||
Db      76 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 135

Qy     121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
          |||
Db     136 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 192
```

## RESULT 9

```
US-11-443-428A-819816
; Sequence 819816, Application US/11443428A
; Patent No. 7745391
; GENERAL INFORMATION:
; APPLICANT: Mintz, Liat
; APPLICANT: Xie, Hanqing
; APPLICANT: Dahari, Dvir
; APPLICANT: Levanon, Erez
; APPLICANT: Freilich, Shiri
; APPLICANT: Beck, Nili
; APPLICANT: Zhu, Wei-Yong
; APPLICANT: Wasserman, Alon
; APPLICANT: Hermesh, Chen
; APPLICANT: Azar, Idit
; APPLICANT: Bernstein, Jeanne
; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES
; FILE REFERENCE: 02/23929
; CURRENT APPLICATION NUMBER: US/11/443,428A
; CURRENT FILING DATE: 2006-05-31
; NUMBER OF SEQ ID NOS: 1034312
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 819816
; LENGTH: 192
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-443-428A-819816
```

```
Query Match          100.0%;  Score 882;  DB 3;  Length 192;
```

Best Local Similarity 100.0%;  
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHTDSEIA	60
Db	16	MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHTDSEIA	75
Qy	61	LLEGLTVVYKSSIDLIFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG	120
Db	76	LLEGLTVVYKSSIDLIFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG	135
Qy	121	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	177
Db	136	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	192

## RESULT 10

US-11-443-428A-819818  
; Sequence 819818, Application US/11443428A  
; Patent No. 7745391  
; GENERAL INFORMATION:  
; APPLICANT: Mintz, Liat  
; APPLICANT: Xie, Hanqing  
; APPLICANT: Dahari, Dvir  
; APPLICANT: Levanon, Erez  
; APPLICANT: Freilich, Shiri  
; APPLICANT: Beck, Nili  
; APPLICANT: Zhu, Wei-Yong  
; APPLICANT: Wasserman, Alon  
; APPLICANT: Hermesh, Chen  
; APPLICANT: Azar, Idit  
; APPLICANT: Bernstein, Jeanne  
; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES  
; FILE REFERENCE: 02/23929  
; CURRENT APPLICATION NUMBER: US/11/443,428A  
; CURRENT FILING DATE: 2006-05-31  
; NUMBER OF SEQ ID NOS: 1034312  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 819818  
; LENGTH: 192  
; TYPE: PRT  
; ORGANISM: Homo sapiens  
US-11-443-428A-819818

Query Match 100.0%; Score 882; DB 3; Length 192;  
Best Local Similarity 100.0%;  
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHTDSEIA	60
Db	16	MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHTDSEIA	75
Qy	61	LLEGLTVVYKSSIDLIFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG	120
Db	76	LLEGLTVVYKSSIDLIFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG	135
Qy	121	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	177
Db	136	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR	192

## RESULT 11

US-11-443-428A-819819  
; Sequence 819819, Application US/11443428A  
; Patent No. 7745391  
; GENERAL INFORMATION:  
; APPLICANT: Mintz, Liat

```
; APPLICANT: Xie, Hanqing
; APPLICANT: Dahari, Dvir
; APPLICANT: Levanon, Erez
; APPLICANT: Freilich, Shiri
; APPLICANT: Beck, Nili
; APPLICANT: Zhu, Wei-Yong
; APPLICANT: Wasserman, Alon
; APPLICANT: Hermesh, Chen
; APPLICANT: Azar, Idit
; APPLICANT: Bernstein, Jeanne
; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES
; FILE REFERENCE: 02/23929
; CURRENT APPLICATION NUMBER: US/11/443,428A
; CURRENT FILING DATE: 2006-05-31
; NUMBER OF SEQ ID NOS: 1034312
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 819819
; LENGTH: 192
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-443-428A-819819
```

```
Query Match          100.0%; Score 882; DB 3; Length 192;
Best Local Similarity 100.0%;
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

```
Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      16 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 75

Qy      61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      76 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 135

Qy     121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     136 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 192
```

## RESULT 12

```
US-11-443-428A-819821
; Sequence 819821, Application US/11443428A
; Patent No. 7745391
; GENERAL INFORMATION:
; APPLICANT: Mintz, Liat
; APPLICANT: Xie, Hanqing
; APPLICANT: Dahari, Dvir
; APPLICANT: Levanon, Erez
; APPLICANT: Freilich, Shiri
; APPLICANT: Beck, Nili
; APPLICANT: Zhu, Wei-Yong
; APPLICANT: Wasserman, Alon
; APPLICANT: Hermesh, Chen
; APPLICANT: Azar, Idit
; APPLICANT: Bernstein, Jeanne
; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES
; FILE REFERENCE: 02/23929
; CURRENT APPLICATION NUMBER: US/11/443,428A
; CURRENT FILING DATE: 2006-05-31
; NUMBER OF SEQ ID NOS: 1034312
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 819821
; LENGTH: 192
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-443-428A-819821
```

Query Match 100.0%; Score 882; DB 3; Length 192;  
Best Local Similarity 100.0%;  
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
          |||
Db      16 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 75

Qy      61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
          |||
Db      76 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 135

Qy      121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
          |||
Db      136 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 192
```

## RESULT 13

US-11-443-428A-819823

; Sequence 819823, Application US/11443428A

; Patent No. 7745391

; GENERAL INFORMATION:

; APPLICANT: Mintz, Liat

; APPLICANT: Xie, Hanqing

; APPLICANT: Dahari, Dvir

; APPLICANT: Levanon, Erez

; APPLICANT: Freilich, Shiri

; APPLICANT: Beck, Nili

; APPLICANT: Zhu, Wei-Yong

; APPLICANT: Wasserman, Alon

; APPLICANT: Hermesh, Chen

; APPLICANT: Azar, Idit

; APPLICANT: Bernstein, Jeanne

; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES

; FILE REFERENCE: 02/23929

; CURRENT APPLICATION NUMBER: US/11/443,428A

; CURRENT FILING DATE: 2006-05-31

; NUMBER OF SEQ ID NOS: 1034312

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 819823

; LENGTH: 192

; TYPE: PRT

; ORGANISM: Homo sapiens

US-11-443-428A-819823

Query Match 100.0%; Score 882; DB 3; Length 192;  
Best Local Similarity 100.0%;  
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
          |||
Db      16 MEALILEPSLYTVKAILILDNDGDRLFAKYYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 75

Qy      61 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
          |||
Db      76 LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 135

Qy      121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
          |||
Db      136 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 192
```

## RESULT 14

US-11-443-428A-819825

; Sequence 819825, Application US/11443428A

; Patent No. 7745391

; GENERAL INFORMATION:

```

; APPLICANT: Mintz, Liat
; APPLICANT: Xie, Hanqing
; APPLICANT: Dahari, Dvir
; APPLICANT: Levanon, Erez
; APPLICANT: Freilich, Shiri
; APPLICANT: Beck, Nili
; APPLICANT: Zhu, Wei-Yong
; APPLICANT: Wasserman, Alon
; APPLICANT: Hermesh, Chen
; APPLICANT: Azar, Idit
; APPLICANT: Bernstein, Jeanne
; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES
; FILE REFERENCE: 02/23929
; CURRENT APPLICATION NUMBER: US/11/443,428A
; CURRENT FILING DATE: 2006-05-31
; NUMBER OF SEQ ID NOS: 1034312
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 819825
; LENGTH: 192
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-443-428A-819825

```

```

Query Match          100.0%;  Score 882;  DB 3;  Length 192;
Best Local Similarity 100.0%;
Matches 177;  Conservative 0;  Mismatches 0;  Indels 0;  Gaps 0;

```

```

Qy      1 MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      16 MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYPVKEQKAFEKNIFNKTHRTDSEIA 75

Qy      61 LLEGLTVVYKSSIDLIFYFVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      76 LLEGLTVVYKSSIDLIFYFVIGSSYENELMLMAVLNCLFDSLSQLMRKNVEKRALLENMEG 135

Qy      121 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 177
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      136 LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVSQVLQSAKEQIKWSLLR 192

```

## RESULT 15

US-11-443-428A-819807

; Sequence 819807, Application US/11443428A

; Patent No. 7745391

; GENERAL INFORMATION:

; APPLICANT: Mintz, Liat

; APPLICANT: Xie, Hanqing

; APPLICANT: Dahari, Dvir

; APPLICANT: Levanon, Erez

; APPLICANT: Freilich, Shiri

; APPLICANT: Beck, Nili

; APPLICANT: Zhu, Wei-Yong

; APPLICANT: Wasserman, Alon

; APPLICANT: Hermesh, Chen

; APPLICANT: Azar, Idit

; APPLICANT: Bernstein, Jeanne

; TITLE OF INVENTION: METHODS AND SYSTEMS USEFUL FOR ANNOTATING BIOMOLECULAR SEQUENCES

; FILE REFERENCE: 02/23929

; CURRENT APPLICATION NUMBER: US/11/443,428A

; CURRENT FILING DATE: 2006-05-31

; NUMBER OF SEQ ID NOS: 1034312

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 819807

; LENGTH: 200

; TYPE: PRT

; ORGANISM: Homo sapiens

US-11-443-428A-819807

Query Match 100.0%; Score 882; DB 3; Length 200;  
Best Local Similarity 100.0%;  
Matches 177; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYP	SVKEQKAFEKNIFNKTHRTDSEIA	60
Db	24	MEALILEPSLYTVKAILILDNDGDRLFAKYDDTYP	SVKEQKAFEKNIFNKTHRTDSEIA	83
Qy	61	LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSL	SQMLRKNVEKRALLENMEG	120
Db	84	LLEGLTVVYKSSIDLYFYVIGSSYENELMLMAVLNCLFDSL	SQMLRKNVEKRALLENMEG	143
Qy	121	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVS	QVLQSAKEQIKWSLLR	177
Db	144	LFLAVDEIVDGGVILESDPQQVVHRVALRGEDVPLTEQTVS	QVLQSAKEQIKWSLLR	200

Search completed: December 14, 2010, 11:25:12  
Job time : 24.8086 secs

SCORE 3.0



# SCORE Search Results Details for Application 09556178 and Search Result 20101214\_103257\_us-09-556-178-5.rapbn.

[Score Home Page](#) [Retrieve Application List](#) [SCORE System Overview](#) [SCORE FAQ](#) [Comments / Suggestions](#)

This page gives you Search Results detail for the Application 09556178 and Search Result 20101214\_103257\_us-09-556-178-5.rapbn.

[Go Back to previous page](#)

GenCore version 6.3  
Copyright (c) 1993 - 2010 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: December 14, 2010, 11:32:21 ; Search time 1 Seconds  
(without alignments)  
1087.643 Million cell updates/sec

Title: US-09-556-178-5  
Perfect score: 882  
Sequence: 1 MEALILEPSLYTVKAILILD.....QTVSQVLQSAKEQIKWSLLR 177

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 23285 seqs, 2931653 residues

Total number of hits satisfying chosen parameters: 23285

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Published\_Applications\_AA\_New:\*  
1: /ABSS/Data/CRF/ptodata/2/pubpaa/US10\_NEW\_PUB.pep:\*  
2: /ABSS/Data/CRF/ptodata/2/pubpaa/US11\_NEW\_PUB.pep:\*  
3: /ABSS/Data/CRF/ptodata/2/pubpaa/US12\_NEW\_PUB.pep:\*  
SUMMARIES

Result No.	Score	% Query		DB	ID	Description
		Match	Length			
1	74.5	8.4	379	3	US-12-800-898-1740	Sequence 1740, Ap
2	74	8.4	1297	3	US-12-781-078-7	Sequence 7, Appli
3	74	8.4	1297	3	US-12-781-099-7	Sequence 7, Appli
4	74	8.4	1297	3	US-12-781-106-7	Sequence 7, Appli
5	74	8.4	1297	3	US-12-781-113-7	Sequence 7, Appli
6	74	8.4	1297	3	US-12-781-126-7	Sequence 7, Appli
7	74	8.4	1297	3	US-12-781-216-7	Sequence 7, Appli
8	74	8.4	1297	3	US-12-781-244-7	Sequence 7, Appli
9	74	8.4	1297	3	US-12-781-261-7	Sequence 7, Appli
10	74	8.4	1297	3	US-12-781-284-7	Sequence 7, Appli
11	72.5	8.2	872	3	US-12-523-023-1	Sequence 1, Appli
12	71	8.0	788	3	US-12-739-689-55	Sequence 55, Appl
13	71	8.0	1979	3	US-12-739-689-47	Sequence 47, Appl
14	71	8.0	1979	3	US-12-739-723-41	Sequence 41, Appl

15	68	7.7	517	3	US-12-783-952-168	Sequence 168, App
16	67.5	7.7	1034	3	US-12-797-443-569	Sequence 569, App
17	67.5	7.7	1053	3	US-12-797-443-568	Sequence 568, App
18	67.5	7.7	1054	3	US-12-797-443-573	Sequence 573, App
19	67.5	7.7	1057	3	US-12-797-443-567	Sequence 567, App
20	67.5	7.7	1081	3	US-12-797-443-566	Sequence 566, App
21	67	7.6	285	3	US-12-625-053A-57	Sequence 57, Appl
22	67	7.6	297	3	US-12-800-898-2856	Sequence 2856, Ap
23	67	7.6	2325	3	US-12-739-689-28	Sequence 28, Appl
24	67	7.6	2325	3	US-12-739-723-30	Sequence 30, Appl
25	66.5	7.5	863	3	US-12-682-544-19	Sequence 19, Appl
26	66.5	7.5	1274	3	US-12-781-078-6	Sequence 6, Appli
27	66.5	7.5	1274	3	US-12-781-099-6	Sequence 6, Appli
28	66.5	7.5	1274	3	US-12-781-106-6	Sequence 6, Appli
29	66.5	7.5	1274	3	US-12-781-113-6	Sequence 6, Appli
30	66.5	7.5	1274	3	US-12-781-126-6	Sequence 6, Appli
31	66.5	7.5	1274	3	US-12-781-216-6	Sequence 6, Appli
32	66.5	7.5	1274	3	US-12-781-244-6	Sequence 6, Appli
33	66.5	7.5	1274	3	US-12-781-261-6	Sequence 6, Appli
34	66.5	7.5	1274	3	US-12-781-284-6	Sequence 6, Appli
35	66	7.5	940	3	US-12-789-112-2	Sequence 2, Appli
36	65.5	7.4	524	3	US-12-599-679-9	Sequence 9, Appli
37	65.5	7.4	1086	3	US-12-800-898-3614	Sequence 3614, Ap
38	64.5	7.3	128	3	US-12-800-898-2126	Sequence 2126, Ap
39	64.5	7.3	466	3	US-12-800-898-4120	Sequence 4120, Ap
40	64	7.3	315	3	US-12-800-898-3186	Sequence 3186, Ap
41	64	7.3	341	3	US-12-713-239-93	Sequence 93, Appl
42	63.5	7.2	352	3	US-12-086-571-57	Sequence 57, Appl
43	63.5	7.2	438	3	US-12-800-898-3508	Sequence 3508, Ap
44	63.5	7.2	519	3	US-12-671-898-61	Sequence 61, Appl
45	63.5	7.2	524	3	US-12-599-679-10	Sequence 10, Appl

## ALIGNMENTS

## RESULT 1

US-12-800-898-1740

; Sequence 1740, Application US/12800898

; Publication No. US20100303822A1

; GENERAL INFORMATION:

; APPLICANT: MASIGNANI, Vega

; APPLICANT: ARICO, Maria

; TITLE OF INVENTION: POLYPEPTIDES FROM NON-TYPEABLE HAEMOPHILUS INFLUENZAE

; FILE REFERENCE: PP022930.0003

; CURRENT APPLICATION NUMBER: US/12/800,898

; CURRENT FILING DATE: 2010-05-25

; PRIOR APPLICATION NUMBER: US/11/596,557

; PRIOR FILING DATE: 2006-11-14

; PRIOR APPLICATION NUMBER: GB-0410866.8

; PRIOR FILING DATE: 2004-05-14

; NUMBER OF SEQ ID NOS: 5095

; SOFTWARE: SeqWin99, version 1.0.4

; SEQ ID NO 1740

; LENGTH: 379

; TYPE: PRT

; ORGANISM: Haemophilus influenzae

; FEATURE:

; OTHER INFORMATION: Name: NTH0958

US-12-800-898-1740

Query Match 8.4%; Score 74.5; DB 3; Length 379;

Best Local Similarity 23.2%;

Matches 46; Conservative 34; Mismatches 63; Indels 55; Gaps 10;

Qy 8 PSLYTVKAILILDN-----DGDR-----FAKYDDTYPVKEQKAFKNI--FNKT-- 52

|:| | |::: | || | :| :| :| ||: |::|